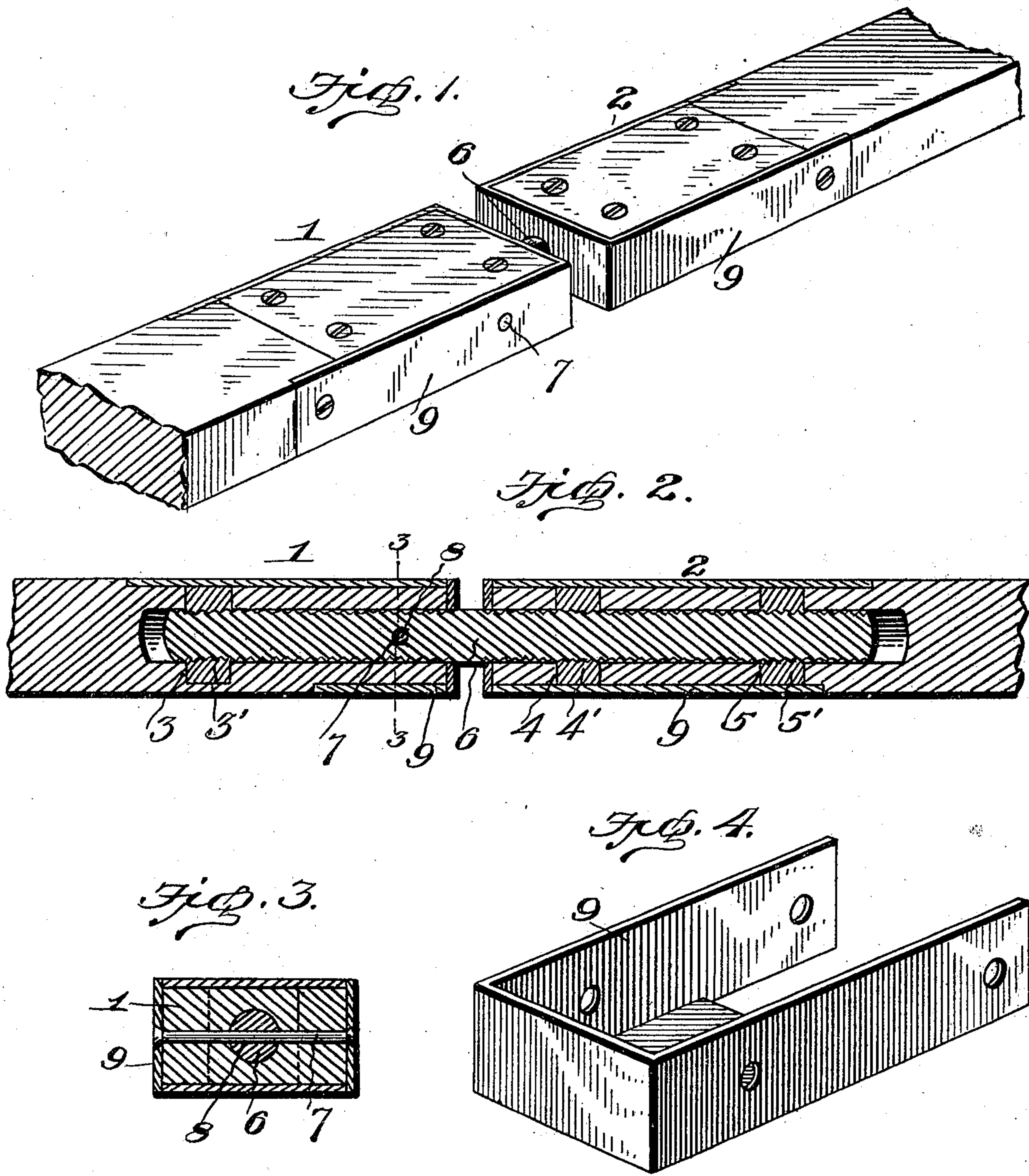


No. 684,908.

Patented Oct. 22, 1901.

J. W. CLONINGER.  
REACH FOR VEHICLES.  
(Application filed Mar. 25, 1901.)

(No Model.)



Witnesses  
*E. Hunt*  
*J. Wilson*

Inventor  
*J. W. Cloninger*  
By *A. B. Wilson & Co.*  
Attorneys



# UNITED STATES PATENT OFFICE.

JOHN W. CLONINGER, OF PEARL, ILLINOIS.

## REACH FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 684,908, dated October 22, 1901.

Application filed March 25, 1901. Serial No. 52,845. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. CLONINGER, a citizen of the United States, residing at Pearl, in the county of Pike and State of Illinois, have invented certain new and useful Improvements in Reaches for Vehicles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in reaches for vehicles, the object thereof being to provide a novel construction of sectional reach having a swivel connection which will permit one part to turn independent of the other part and relieve the running-gear of strain in traveling over rough roads.

The invention consists in a reach embodying certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a perspective view of a vehicle-reach constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a cross-section on line 3 3 of Fig. 2, and Fig. 4 is a perspective view of one of the caps or sockets.

In the drawings, 1 and 2 denote the adjacent or contiguous ends of the sections forming my improved reach, the section 1 having a nut-socket 3 and the section 2 having the nut-sockets 4 and 5. Placed within these sockets are nuts 3', 4', and 5', respectively.

6 denotes a coupling-screw, one end of which is inserted through the inner end of the section 1 and engaged with the nut and prevented from turning by a cross-pin or dowel 7, inserted through the side of the section 1 and through an aperture 8, formed in the screw. The opposite end of this screw engages the nuts 4' and 5' of the section 2 of the reach, but is not locked so as to prevent the turning or axial movement of the section 2 with respect to the section 1. The nuts 4'

and 5' are located quite a distance apart, so as to get an extended bearing for the end of the screw and at the same time to reduce to a minimum the liability of the splitting of the end 2 of the reach-section. To make a neat appearance and also to protect the adjacent ends of the reach-sections, metallic cap-plates 9 are employed. These, however, are not absolutely necessary, and I do not wish to be restricted to the same.

In operation the vehicle equipped with a reach of the construction above described will in traveling over rough or rutty surfaces relieve the fifth-wheel of strain due to the axial movement of the reach with respect to the other section of the reach.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of my invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

A reach consisting of two sections, the adjacent ends of which are provided with nut-sockets, nuts seated in said sockets, a screw inserted through the ends of said reach-sections and engaging said nuts, said screw being provided with a transverse aperture, and a pin inserted through one of said sections and the aperture of said screw to lock said screw against rotary movement in one section, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

J. W. CLONINGER.

Witnesses:

W. H. GRAFFORD,  
J. T. DOMAN.