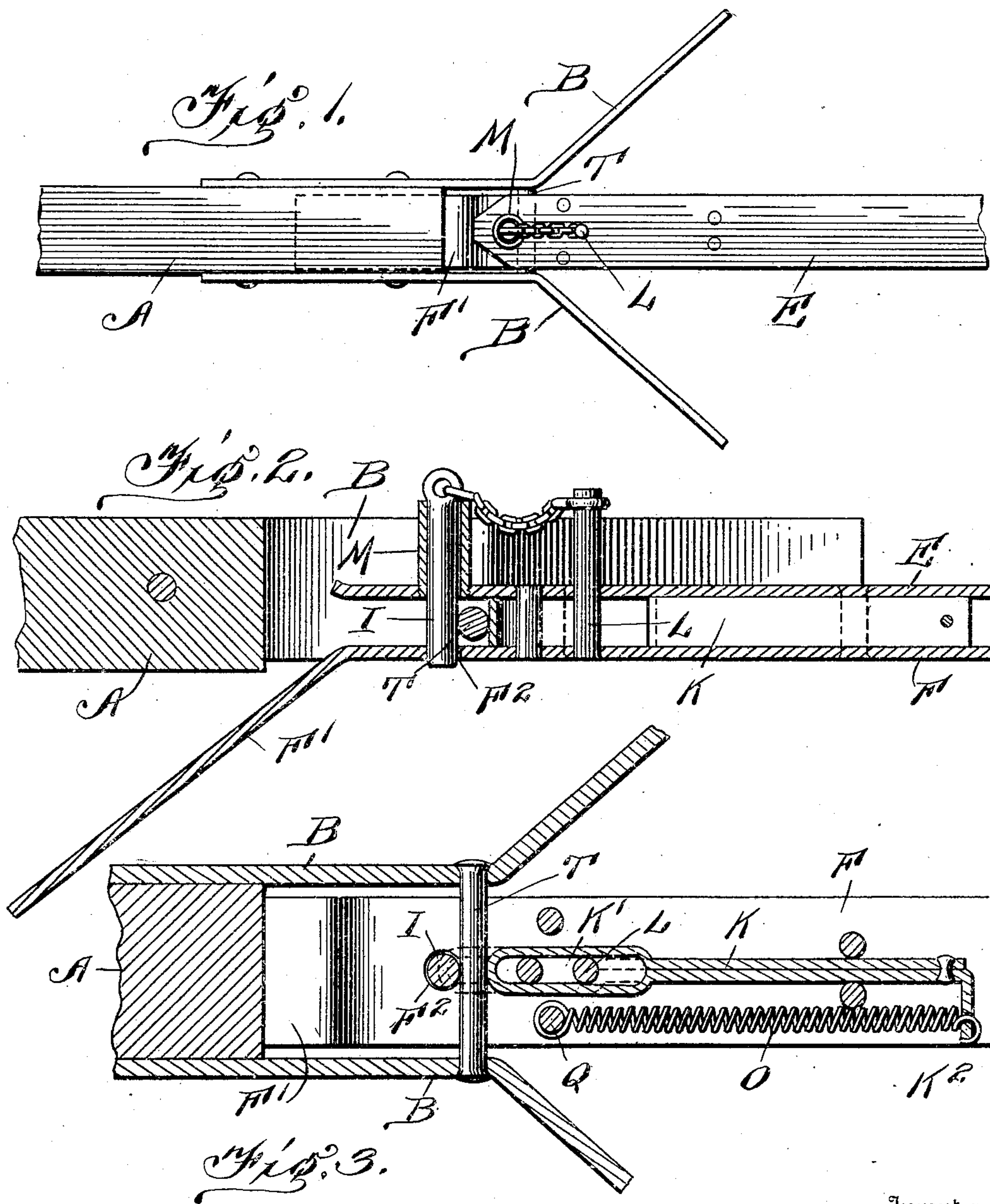


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 AUTOMATIC SELF GUIDING COUPLING FOR THRESHING MACHINES.  
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Patented Aug. 3, 1909.



Witnesses  
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# UNITED STATES PATENT OFFICE.

LINN A. DAVIS, OF LARNED, KANSAS.

## AUTOMATIC SELF-GUIDING COUPLING FOR THRESHING-MACHINES.

No. 929,920.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed April 29, 1909. Serial No. 493,029.

*To all whom it may concern:*

Be it known that I, LINN A. DAVIS, a citizen of the United States, residing at Larned, in the county of Pawnee and State of Kansas, have invented certain new and useful Improvements in Automatic Self-Guiding Couplers for Threshing-Machines; and I do hereby 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in automatic self-guiding coupling mechanism for threshing machines, etc., and comprises means whereby a coupling of an engine to the machine may be readily accomplished.

The invention comprises various details of construction and combinations and arrangements of parts which will be herein-after fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a top plan view of my improved coupling apparatus. Fig. 2 is a vertical longitudinal section through the coupler, and Fig. 3 is a detail sectional view.

Reference now being had to the details of the drawings by letter, A designates the tongue of a vehicle of any kind and is provided with the angle bars B fastened to the opposite sides of the tongue, with the free ends of the bars flaring outwardly, as shown in the drawings, and serving as means for guiding the tongue to the coupler. Bars E and F are fastened parallel to each other and adapted to be fastened to the engine, not shown, said bars E and F being spaced apart, and one of the bars F has a downwardly projecting angled end F', adapted to serve as a guide for the tongue coming in contact with the upper inclined edge thereof when the parts come together to be coupled.

Mounted in an aperture in the bar E is a guide tube M, and mounted between the two bars E and F is a sliding member K having an elongated slot K' therein, and L designates a pin passing through the two bars E and F and also through the slot K' and serves to limit the longitudinal movement

of said member K. A spring O is fastened at one end of a pin Q fastened between the plates E and F and its other end is fastened to the angled end K<sup>2</sup> of the member K, the office of said spring being to normally throw the member K in its farthest limit toward the free ends of the bars E and F. It will be noted in the sectional view of the drawings that said guide tube is in registration with an aperture F<sup>2</sup> in the bar F, and I designate a locking pin which is positioned within the guide tube and normally rests when the device is uncoupled, upon the upper edge of the member K, and when said member is moved longitudinally between the bars E and F and against the tension of the spring connected to said member, the latter drawing from under the pin will allow the latter to fall by gravity through the aperture F' in the bar F. When the pin is raised out of said aperture F' and above the upper edge of the member K, the latter, when pressure is relieved from its outer edge, will return to its normal position and hold the pin suspended in readiness to be automatically coupled.

A rod or pin T is mounted in registering apertures in the bars B and is adapted when the parts come together to be coupled, to contact with the outer free end of the member K and cause the latter to be moved longitudinally in connection with the spring connected thereto, and after the pin or rod T has passed by the under end of said guide tube, the pin will fall by gravity through the aperture F', thereby coupling the parts.

In operation, the tongue and the bars E and F being in substantially horizontal planes are brought toward each other and, as the downwardly inclined end of the bar F comes in contact with the lower marginal edges of the outwardly flaring bars B, said bar F will be deflected laterally in one direction or another and, when the upper inclined face of the downwardly extending end of the bar F comes in contact with the pin P, said bar F will be downwardly deflected and come into alinement with the tongue. In the event of the inclined end of the bar F coming in contact with the lower edges of the bars B, the tongue will be raised so that the pin T will pass between the two bars E and F and coming in contact with the member K, will cause the same to move under the tension of the spring and allow the coupling pin



to fall behind said pin or rod T. When it is desired to uncouple the apparatus, the same may be done by simply raising the coupling pin, which will be automatically held by the member K in readiness to be automatically coupled when the parts come together.

What I claim to be new, is:—

1. An automatic means for guiding and coupling an engine to a vehicle, comprising a vehicle tongue, bars fastened to the opposite faces thereof and spaced apart and having their free ends flaring at angles to each other, a horizontally disposed pin connecting parallel portions of the bars which project beyond the tongue and adjacent to the angled portions of the bars, parallel bars spaced apart, one of which projects beyond the other and bent at an angle, a spring-actuated pin supporting member movable between said parallel bars and provided with an elongated slot, a pin normally resting upon the marginal edge of the slot at the end thereof and designed, as the supporting member is moved under the tension of said spring by contact with said horizontally disposed pin to allow the coupling pin to fall by gravity to a locked position.

2. An automatic means for guiding and

coupling an engine to a vehicle, comprising a vehicle tongue, bars fastened to the opposite faces thereof and spaced apart and having their free ends flaring at angles to each other, a horizontally disposed pin connecting parallel portions of the bars which project beyond the tongue and adjacent to the angled portions of the bars, parallel bars spaced apart, one of which projects beyond the other and bent at an angle, a coupling pin mounted in a hollow boss rising from one of said parallel plates, a spring-actuated pin supporting member movable between said parallel bars and provided with an elongated slot, pins extending through the slot of said pin supporting member and fastened at their ends to said parallel bars and adapted to limit the longitudinal movements of said member, the forward end of the latter adapted to form a support for said coupling pin.

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

LINN A. DAVIS.

Witnesses:

BOB L. VICTOR,  
GEO. P. BAXTER.