

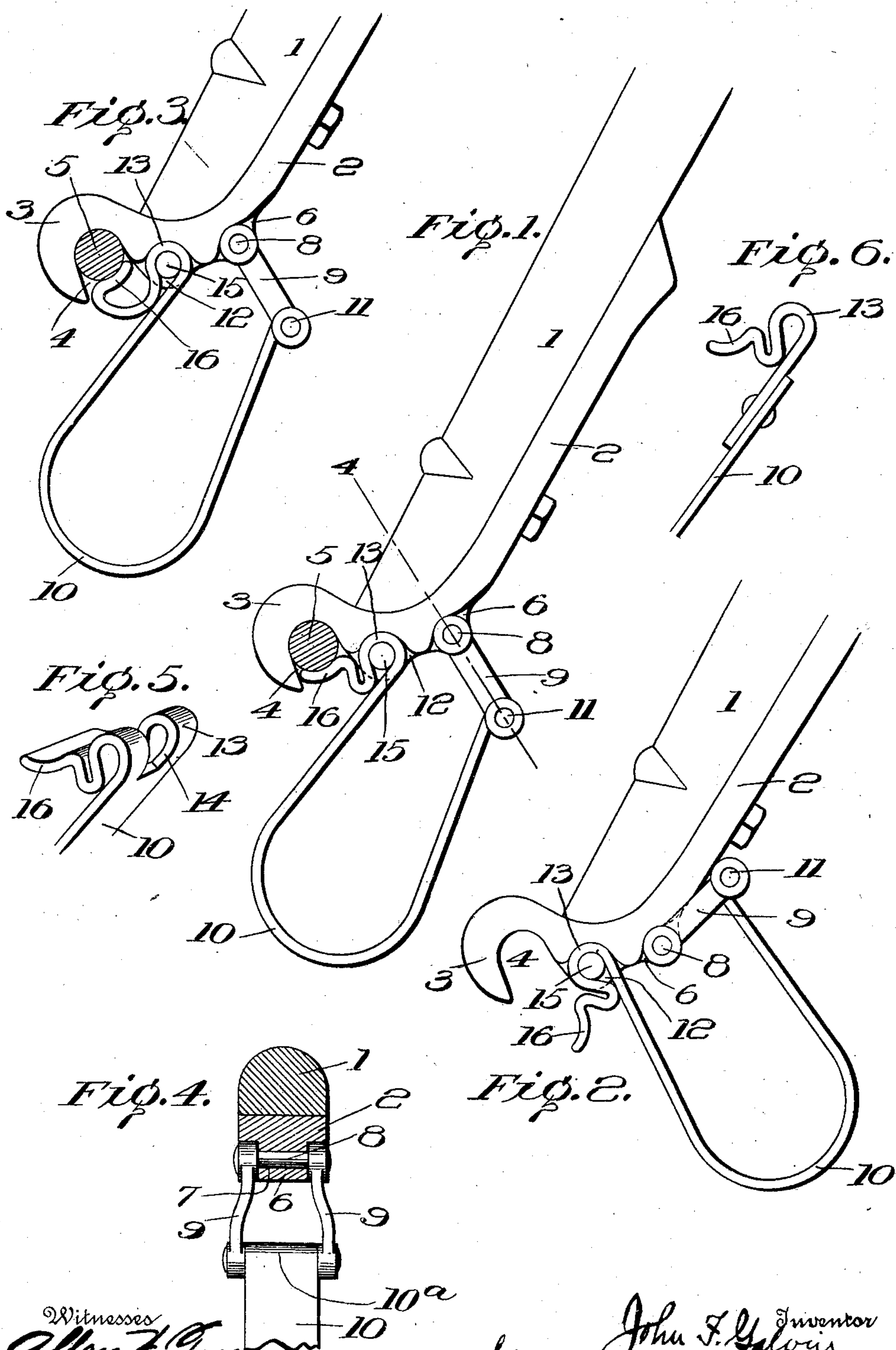
J. F. GALVIN.

THILL COUPLING.

APPLICATION FILED MAR. 18, 1908.

991,497.

Patented May 9, 1911.



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JOHN F. GALVIN, OF NEW YORK, N. Y.

THILL-COUPLING.

991,497.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed March 18, 1908. Serial No. 421,774.

To all whom it may concern:

Be it known that I, JOHN F. GALVIN, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification.

The invention consists in the construction and combination of parts hereinafter described and pointed out in the claims.

In the accompanying drawing which forms part of this application, the same reference character indicates the same part in the several views.

Referring to the drawing, Figure 1 is a side view of a coupling embodying my invention showing the parts in their closed position. Fig. 2 is a side view showing the parts in their open position. Fig. 3 is a side view of a modification. Fig. 4 is a section on line 4 of Fig. 1. Fig. 5 is a perspective view showing a detail of construction. Fig. 6 is a side elevation showing a modified construction.

The part marked 1 on the drawing represents the rear end of the thill to which is attached the thill iron 2. On the rear end of this iron is formed a hook-eye 3 provided on its under side with a throat or recess 4 to permit the hook-eye to take over the coupling bolt 5 which passes through the ears of the axle clip, not shown. The under side of the thill iron is provided with a lug 6 having an opening 7 therein. Pivoted to this lug by the bolt 8 is a pair of double links 9.

Out of a flat piece of spring metal is formed a U-shaped spring 10. Connected to one end of the spring is an eye, 10^a; a pin 11 passes through said eye and an opening in the link to pivotally connect the spring to the link. At the other end of the spring is connected an eye 13, which is slotted at 14 to receive a lug 12 at the rear and lower side of the thill iron. 15 is a pin passing through the eye and an opening in the lug. 16 is a dog connected to and formed of the same piece of spring metal as the spring. In the preferred construction, the flat piece of metal has only one turn to form the dog, as shown in Figs. 1 and 2. In the modified construction shown in Fig. 3, this metal is turned back upon itself, so

that the end thereof will be toward the far end of the coupling. Also, in the preferred construction, the spring, the eyes connected thereto, the ends thereof, and the dog are formed of a single piece of flat spring metal. In Fig. 6 I have shown the dog and eye made of the same piece of metal and the eye connected to the end of the spring by a rivet. When the eye is riveted to the spring these parts will operate the same as if they were constructed out of the same piece of metal. The dog being made of spring metal not only securely rests against the bolt but permits a certain amount of give or resiliency under unusual strain.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a thill coupling, a thill iron, a hook-eye connected thereto and having a throat therein adapted to receive a coupling bolt, a link pivoted at one end to the thill iron, a flat spring having one end thereof pivotally connected to the free end of the link, a portion of the spring near the other end being curved to form an eye, and the free end of the spring beyond the eye being curved to form a dog adapted to enter the throat and bear upon the coupling bolt.

2. In a thill coupling, a thill iron, a hook-eye connected thereto and having a throat therein adapted to receive a coupling bolt, a link pivoted at one end to the thill iron, a spring made of a flat resilient material having one end pivotally connected to the free end of the link, an eye formed in the spring near its free end by bending the spring, a pivot connecting the eye to the thill iron, a dog formed by bending the free end of the spring, said dog adapted to enter the throat and bear upon the coupling bolt.

3. In a thill coupling, a thill iron, a hook-eye connected thereto and having a throat on the underside thereof adapted to receive a coupling bolt, a link pivoted at one end to the underside of the thill iron, a U-shaped spring made out of a flat piece of resilient material having one end pivoted to the free end of the link, an eye formed at the free end of the spring by bending the flat piece of resilient material, the said eye being slotted, a lug in the thill iron, said lug fitting in the slot of said eye, a pivot con-

necting the eye and the lug, and a dog
formed beyond the eye by bending the end
of the flat resilient material, said dog adapt-
ed to enter the throat and bear upon the
5 coupling bolt.

In witness whereof I have hereunto set
my hand at the city, county and State of

New York, this eleventh day of February,
1908.

JOHN F. GALVIN.

In presence of—

I. R. RICHARDS,
JOHN J. RANAGAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
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