

No. 861,780.

PATENTED JULY 30, 1907.

D. L. TSCHANTZ.
THILL COUPLING.
APPLICATION FILED MAR. 9, 1907.

Fig. 1.

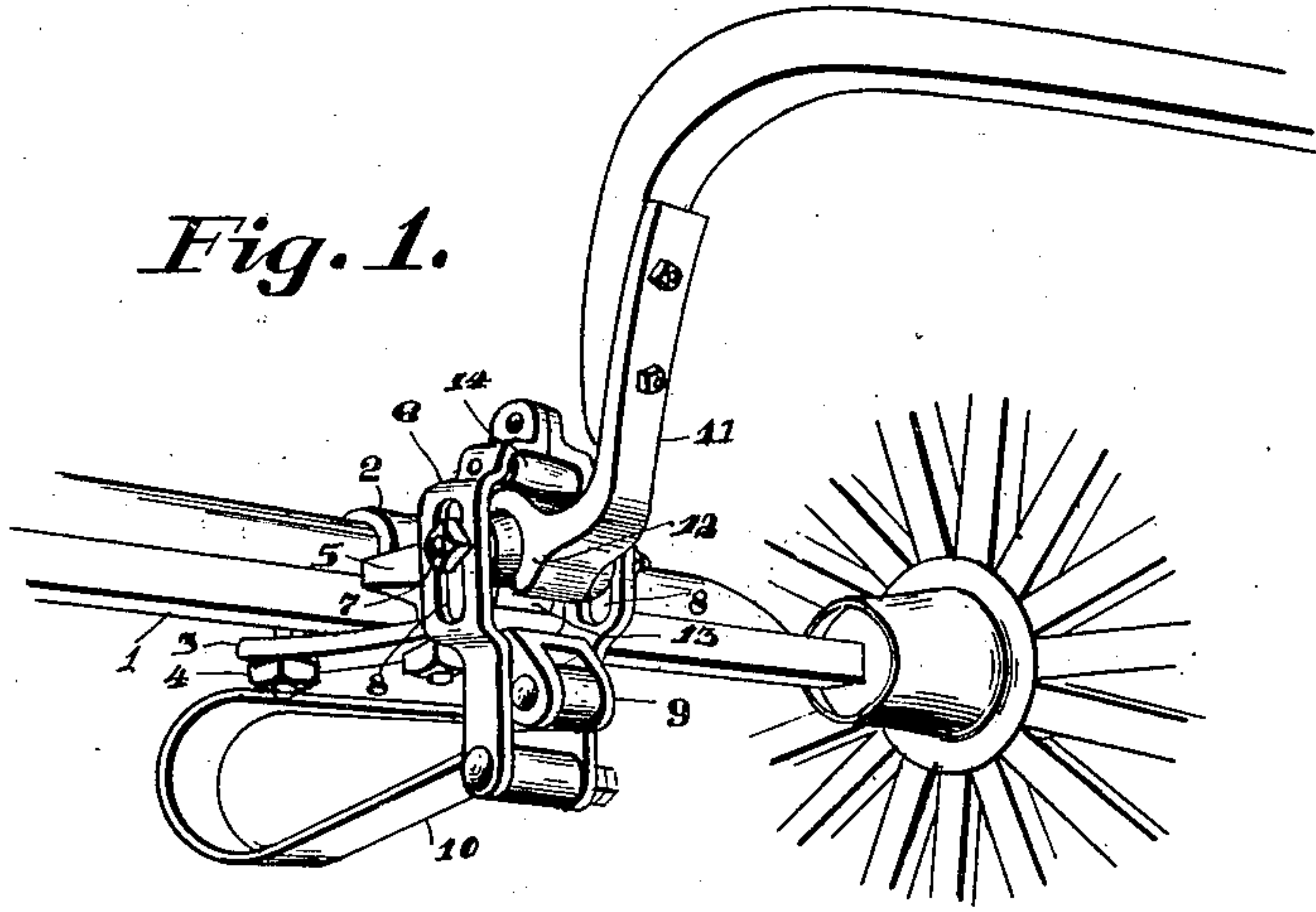


Fig. 2.

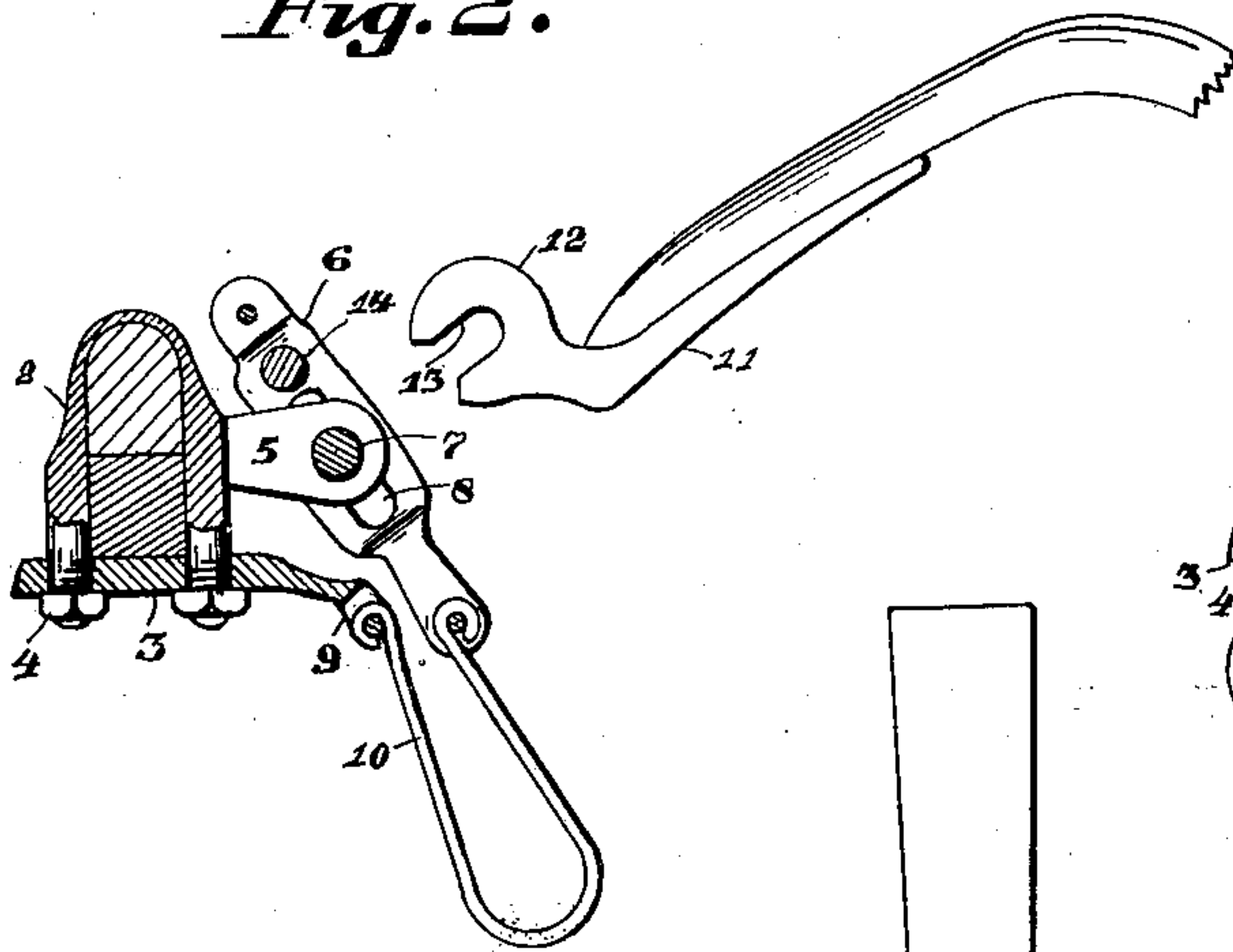


Fig. 3.

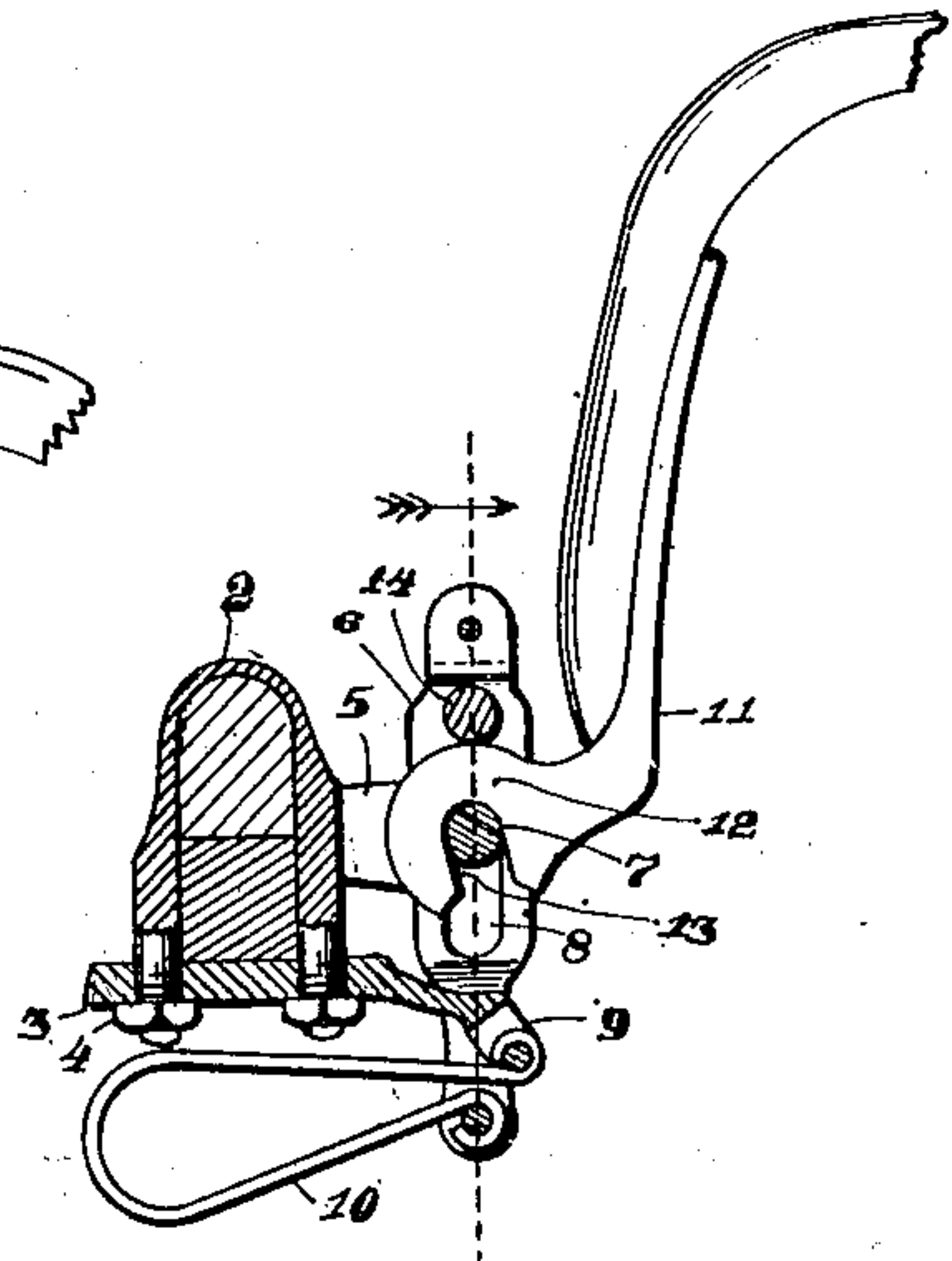
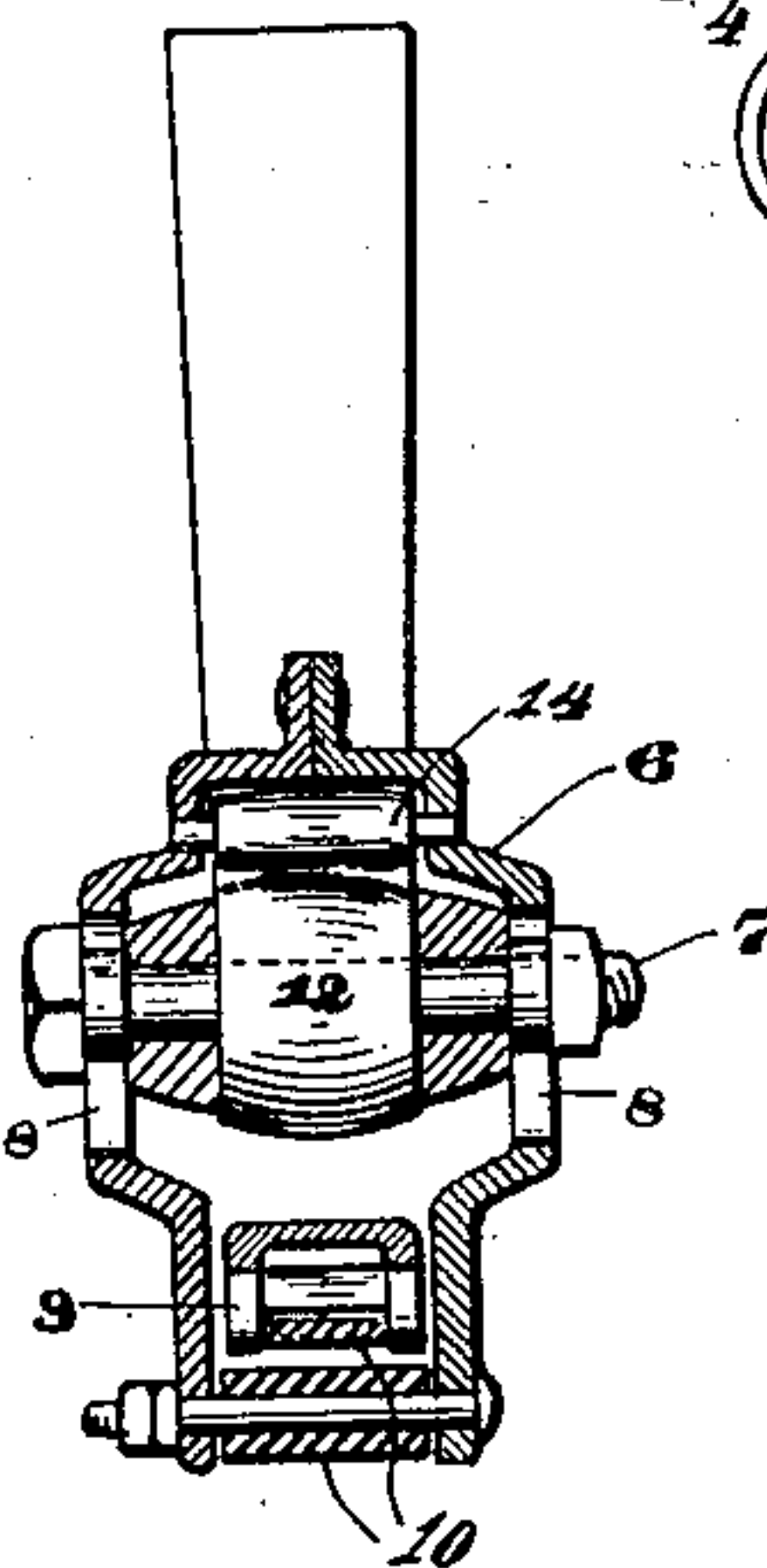


Fig. 4.



Witnesses

Harry O. Rastetter?
Sylvia Boron.

By

Inventor

David L. Tschantz

J. W. Board

Attorney

UNITED STATES PATENT OFFICE.

DAVID L. TSCHANTZ, OF CANTON, OHIO.

THILL-COUPLING.

No. 861,780.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed March 9, 1907. Serial No. 361,472.

To all whom it may concern:

Be it known that I, DAVID L. TSCHANTZ, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the numerals and figures of reference marked thereon, in which—

Figure 1 is a perspective view showing the coupler properly attached. Fig. 2 is a view showing the coupler attached to the axle and the thill iron detached. Fig. 3 is a transverse section of the axle showing the thill iron properly connected, showing parts in section. Fig. 4 is a view looking to the right Fig 3.

The present invention has relation to thill couplings, and it consists in the novel arrangement hereinafter described and particularly pointed out in the claims. Similar numerals of reference indicate corresponding parts in all the figure of the drawings.

In the accompanying drawing, 1 represents the axle, which is of the usual construction and to which the clip 2 is connected by means of the strap bar 3 and the nuts 4. The clip 2 is provided with the ears or flanges 5, which are preferably formed integral with the clip 2, and are formed of sufficient length to provide room to properly locate the rocking housing 6, which rocking housing is carried by the cross bolt 7, which cross bolt extends through the ears or flanges 5, and the slots 8 formed in the housing 6. The front or forward end of the strap bar 3 is provided with the flanges 9, which flanges are for the purpose of connecting one end of the spring 10, the opposite end of the spring being connected to the bottom or lower end of the housing 6 as illustrated in the drawings. The thill iron 11 is provided with the head 12, which head is provided with the recess 13, said recess being for the purpose of engaging the cross bolt 7 as illustrated in Fig. 3. The spring 10 is for the purpose of holding the housing 6, in a lowered position and in a vertical plane or parallel with the clip 2.

For the purpose of preventing the thill iron 11 from becoming detached the housing 6 is provided with the anti-friction roller 14, which roller is so located that it will come in contact with the top or upper rounded surface of the head 12, and by reason of the action of

the spring will at all times hold said roller in close contact with the head 12, and the thill iron 11 in proper engagement with the cross bolt 7. When it is desired to remove the thill iron the spring 10 is swung or brought into the position illustrated in Fig. 2, which movement of the spring rocks the lower end of the housing 6 forward and its top or upper end rearward so that the thill iron 11 can be disconnected from the cross bolt 7.

For the purpose of permitting the housing 6 to be drawn downward by the spring 10 when placed in the position illustrated in Figs. 1 and 3, the slots 8 are provided. By providing the anti-friction roller 14 and locating the same as shown that is to say in the upper end of the housing 6 two purposes are accomplished first to hold the thill-iron in close contact at all times with the cross bolt 7 and second to prevent any rattle of the thill-iron as between the parts to which it is connected.

It will also be understood that by providing the anti-friction roller 14 there will be practically no wear as between the head and the part that holds the thill-iron in engagement.

It will be understood that by my peculiar arrangement the thills of a vehicle can be easily removed without detaching any of the parts of the coupler proper and can be quickly connected when desired.

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

1. In a thill-coupler, a clip having pivotally connected thereto a housing, said housing provided with an anti-friction roller at its top or upper end, a cross bolt located through the housing, a notched or recessed thill-iron head, and a spring adapted to hold the anti-friction roller in engagement with the thill-iron head, substantially as and for the purpose specified.

2. In a thill coupler, the combination of an axle clip and a strap-bar connected to said clip, a housing provided with slots, a cross-bolt extended through the slots, ears adapted to support said cross-bolt, said cross-bolt adapted to pivotally attach said housing to the clip, a thill iron head adapted to be connected to the cross-bolt, a spring secured to the bottom or lower portion of the housing and to the strap-bar respectively, and means in the housing to normally hold the thill iron head in contact with the cross-bolt, substantially as and for the purpose specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

DAVID L. TSCHANTZ.

Witnesses:

J. A. JEFFERS,
F. W. BOND.