

P. C. PAULSEN & P. SANDERSON.  
DETACHABLE TOOTH FORK.  
APPLICATION FILED JAN. 23, 1911.

992,046.

Patented May 9, 1911.

Fig. 1

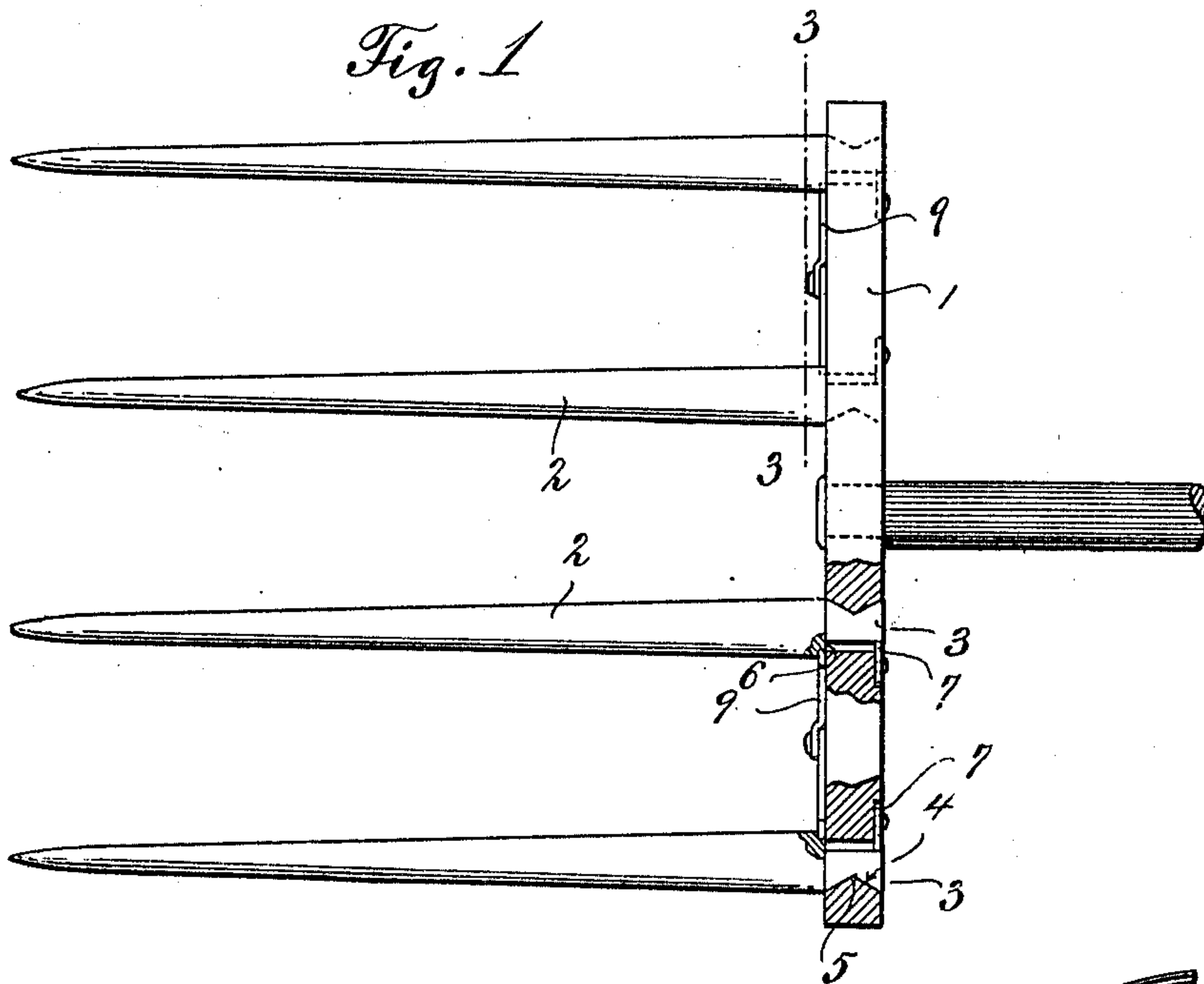


Fig. 2

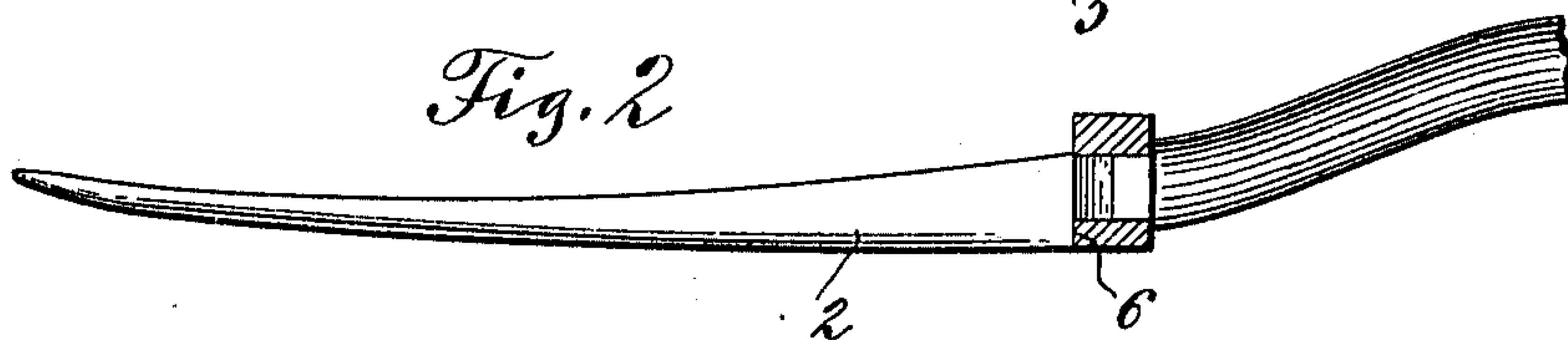


Fig. 3

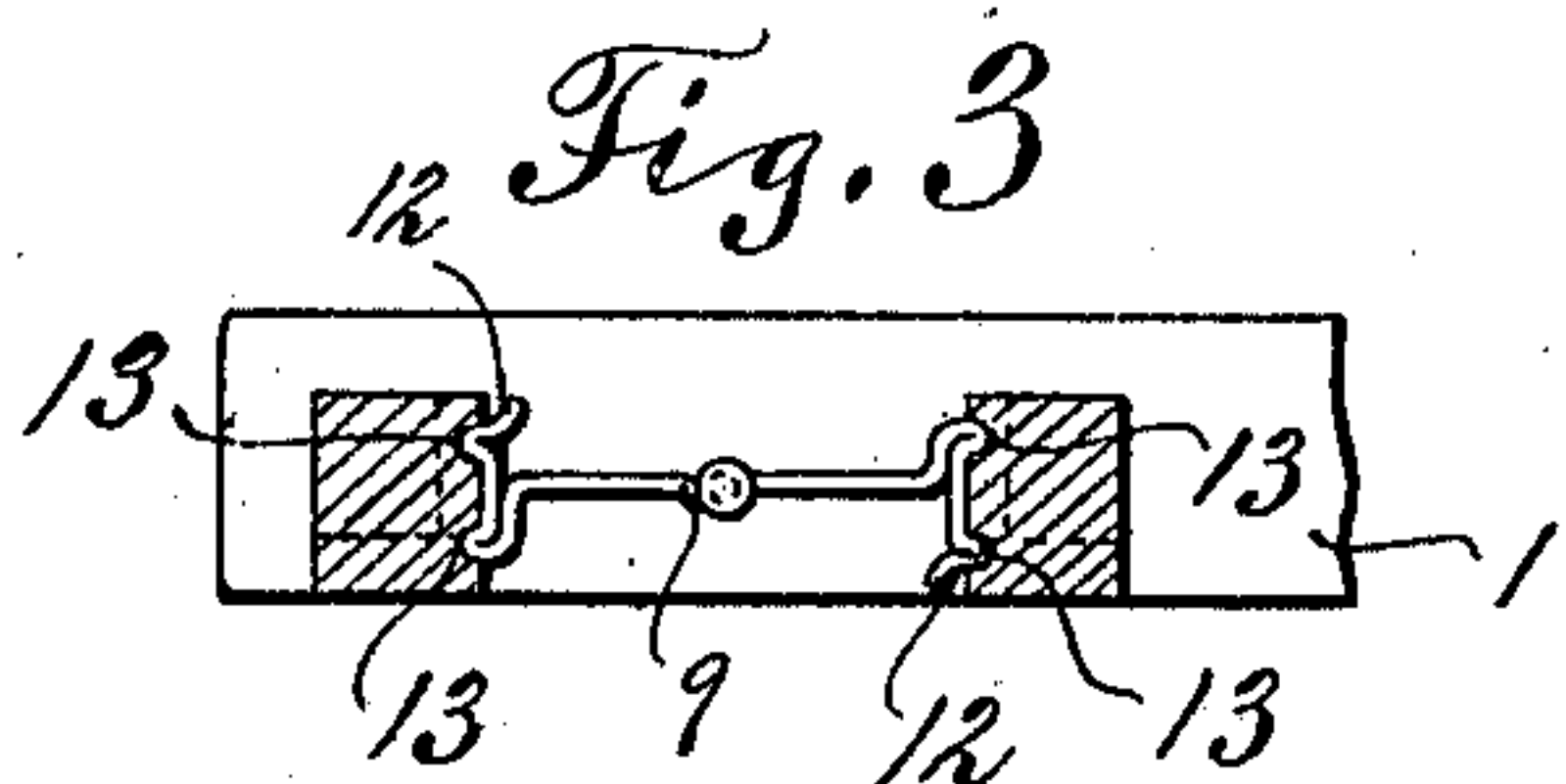


Fig. 4

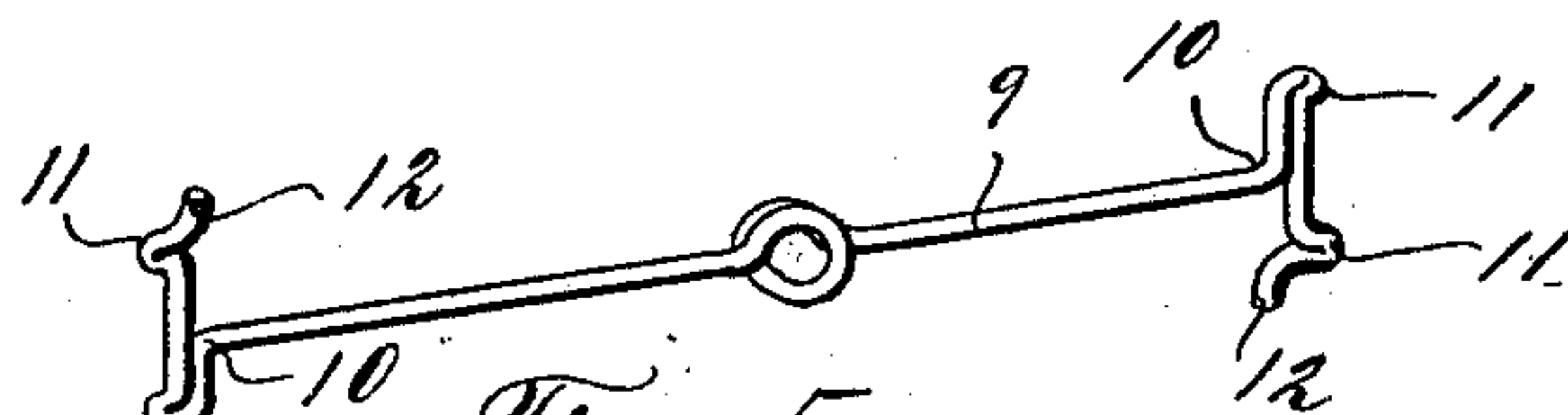
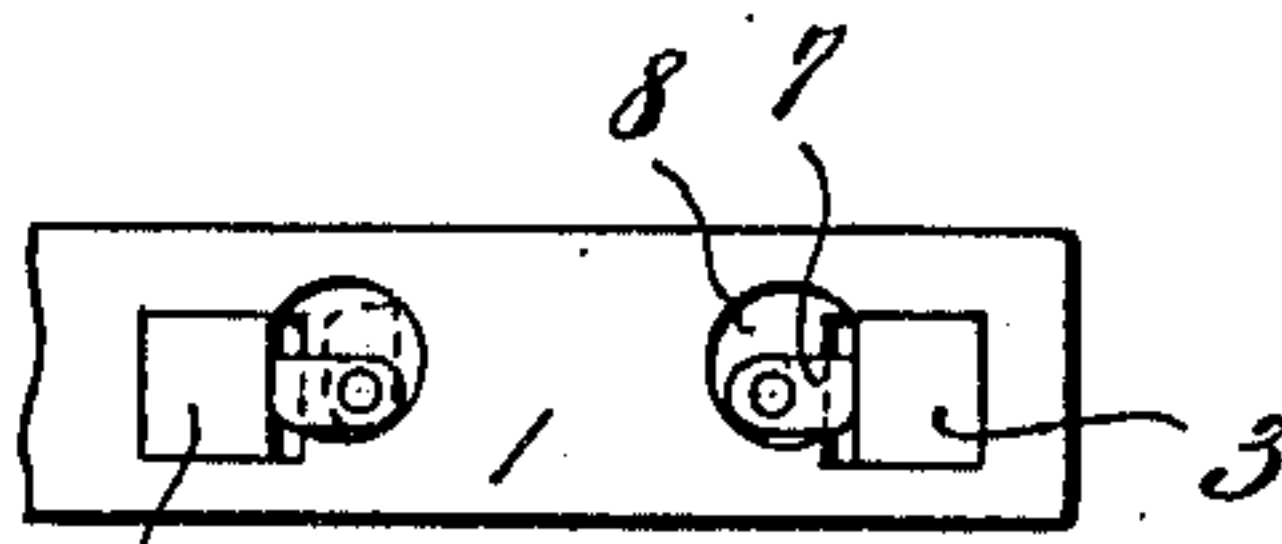


Fig. 5

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# UNITED STATES PATENT OFFICE.

PAUL C. PAULSEN AND PETER SANDERSON, OF PALERMO, NORTH DAKOTA.

## DETACHABLE-TOOTH FORK.

992,046.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed January 23, 1911. Serial No. 604,243.

*To all whom it may concern:*

Be it known that we, PAUL C. PAULSEN and PETER SANDERSON, citizens of the United States, residing at Palermo, in the county of Montraile and State of North Dakota, have invented certain new and useful Improvements in Detachable-Tooth Forks, of which the following is a specification.

This invention is primarily designed to provide a fork with detachable teeth whereby a broken tooth may be replaced without discarding the fork itself.

It has been the custom, when using the forks now on the market, to discard the same if a tooth or prong is broken whereby a great deal of expense is incurred by having to purchase a new fork. By the present construction, when a tooth has been broken, it will be only necessary to purchase a single tooth, thereby greatly reducing the expense for such an implement.

For a full understanding of the invention, reference is to be had to the following description and to the accompanying drawings in which—

Figure 1 is a plan view of the fork, parts thereof being broken away to more clearly disclose the present invention; Fig. 2 is a side elevation of a tooth secured to the cross member of the fork; Fig. 3 is a view taken on line 3—3 of Fig. 1; Fig. 4 is a rear elevation of a portion of the fork; Fig. 5 is a perspective of the locking member by which the teeth are retained to the cross member.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Referring more particularly to the drawings, 1 designates a cross member or beam to which may be secured any suitable means for using the present invention. Each tooth 2 is provided with a reduced portion 3, one side of which is provided with a tapering recess 4 which is adapted to receive a tapering projection 5 carried by the cross member 1 and projecting inwardly into openings in which the teeth are secured. Each tooth is provided with the shoulders 6 which abut against the cross member 1. To form a lock for the rear terminal of each tooth, a latch 7 is provided which is pivoted in a recess 8 whereby said latch may be swung into engagement with the tooth for retaining the same in place or disengaged therefrom for removing the tooth, as the case may be.

A locking member is pivotally mounted on the front side of the beam or cross member 1, said locking member comprising a single strip of any desired material and size and being looped in the center whereby pivotal connection may be obtained. Each terminal of the locking member 9 is bent perpendicularly, as at 10, and is then bent upon itself at two places to provide engaging portions or projections 11, the extremities then being bent to form grips 12, for the purpose hereinafter described.

Each pair of teeth is mounted in the cross member 1 with their tapering recesses extending away from each other, thereby necessitating the tapering projections 5 extending toward each other. The locking member 9 is pivoted between the teeth of each pair, so that the tendency will be to force the teeth into locking engagement with the projections 5. Each tooth is provided on one of its shoulders with a pair of recesses 13 adapted to receive the projections 11, as illustrated in Fig. 3.

From the foregoing, it will be observed that, to remove a tooth, the projections 11 will have to be withdrawn from the recesses 13 which may easily be accomplished by the finger or grip piece 12, after which the locking member may be rotated to an inoperative position and the latch member 7 disengaged, as previously described.

Having thus fully described our invention, what we claim as new is:—

1. A fork, comprising a cross member provided with openings, a plurality of teeth adapted to be received by said openings, latch members pivotally carried by said cross member adapted to engage said teeth, and means detachably engaging the teeth for retaining the same to the cross member, as herein set forth.

2. A fork, comprising a cross member having openings therein, projections carried by said cross member and projecting into said openings, teeth provided on the rear terminals with recesses adapted to receive said projections, latch members carried on the rear side of said cross member adapted to engage said teeth, and locking members pivotally mounted on the front side of said cross member whereby said teeth are forced into locking engagement with said cross member, as herein set forth.

3. A fork, comprising a cross member

provided with openings, projections extending into said openings, the projection of one opening extending oppositely from the adjacent projections, teeth provided with reduced portions, said reduced portions being  
5 provided with recesses adapted to receive said projections, latch members carried on the rear side of said cross member adapted to engage said teeth, and a locking member  
10 pivotally mounted between the teeth of each

pair for forcing the same into locking engagement with the cross member, as herein set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

PAUL C. PAULSEN.  
PETER SANDERSON.

Witnesses:

O. E. LEE,  
ANNA S. LEE.

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