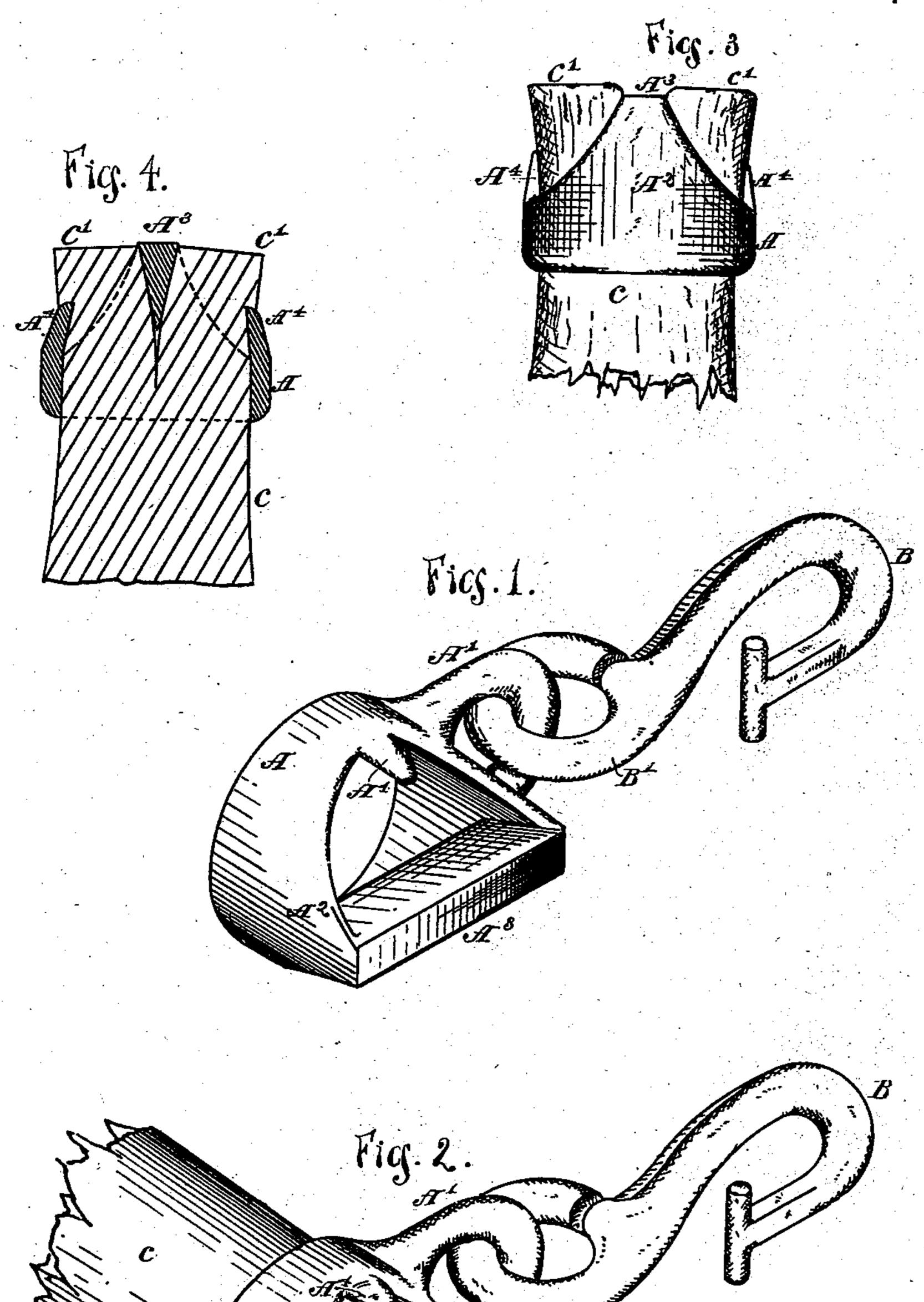
(No Model.)

## J. MACPHAIL & F. M. NEEDHAM.

HOOK FOR SINGLETREES.

No. 376,806.

Patented Jan. 24, 1888.



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James Machbail, per Franklin Meellam,

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## United States Patent Office.

JAMES MACPHAIL AND FRANKLIN M. NEEDHAM, OF ROCKFORD, ILLINOIS.

## HOOK FOR SINGLETREES.

SPECIFICATION forming part of Letters Patent No. 376,806, dated January 24, 1888.

Application filed June 3, 1887. Serial No. 240,135. (No model.)

To all whom it may concern:

Be it known that we, James Macphail and Franklin M. Needham, citizens of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented a certain new and useful Improvement in Hooks for Singletrees, of which the following is a specification.

This invention relates to the manner in to which the hereinafter-described singletree-

hooks are secured to singletrees.

The object of this invention is to produce singletree hooks of the simplest possible construction, that can be securely fastened to singletrees by simply driving the ferrules of said hooks upon the ends of the same.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is an isometric view of our improved single20 tree-hook. Fig. 2 is a like view of the same secured to a singletree. Fig. 3 is a back side view of the parts shown in Fig. 2. Fig. 4 is a view of a section of the singletree-hook and its singletree through the dotted line x x of Fig. 2.

Like letters of reference indicate corresponding parts throughout the several views.

A represents a ferrule provided with an eye, A', projecting transversely forward from the 30 outside of the same.

A<sup>2</sup> represents lugs preferably nearly triangular in form and projecting from the outer end of the ferrule A in a direction substantially parallel to the axis thereof.

A<sup>3</sup> represents a wedge included lengthwise between the free ends of the lugs A<sup>2</sup> and extending inward edgewise in the direction of the longitudinal center of the ferrule A.

A<sup>4</sup> represents spurs projecting from the outer 40 end of the ferrule A and converging toward the axis thereof.

B represents a singletree-hook proper connected with the eye A' of the ferrule A by means of a counterpart eye, B'. The ferrule A, eye A', lugs A<sup>2</sup>, wedge A<sup>3</sup>, and spurs A<sup>4</sup>

are integral, and can be most advantageously constructed of cast-iron made malleable.

C represents a singletree.

To fasten the singletree-hook to a singletree, rest one end thereof on an anvil, block, or 50 other firm substance, slip the open end of the ferrule A upon the other end of the singletree, and strike one or two vigorous blows upon the ends of the lugs A<sup>2</sup> and back of the wedge A<sup>3</sup>. As the wedge A<sup>3</sup> enters the end of the singletree C, the curved sides of the semicircular halves C' thereof will be pressed outward against the points of the spurs A<sup>4</sup>, which will thereby be forced into the singletree, as shown in Figs. 3 and 4.

Obviously a ring may be used in place of the hook B, and our improvement applied to neck-yokes, &c., as successfully as to singletrees.

We claim as new and desire to secure by Let- 65 ters Patent—

1. In a singletree-hook, the combination, with the herein-described ferrule, of the wedge connected therewith and extending inward edgewise in the direction of the longitudinal 70 center of said ferrule when said ferrule and wedge are formed and used in a single piece, as herein shown, substantially as set forth.

2. The combination, with the herein-described ferrule having lugs projecting from 75 the outer end thereof in a direction substantially parallel to the axis of said ferrule, of a wedge included lengthwise between the free ends of said lugs and extending inward edgewise in the direction of the longitudinal center of said ferrule, and the spurs projecting from the outer end of said ferrule and converging toward the axis thereof, substantially as described, and for the purpose set forth.

JAMES MACPHAIL. FRANKLIN M. NEEDHAM.

Witnesses:

C. C. Briggs, L. L. Morrison.