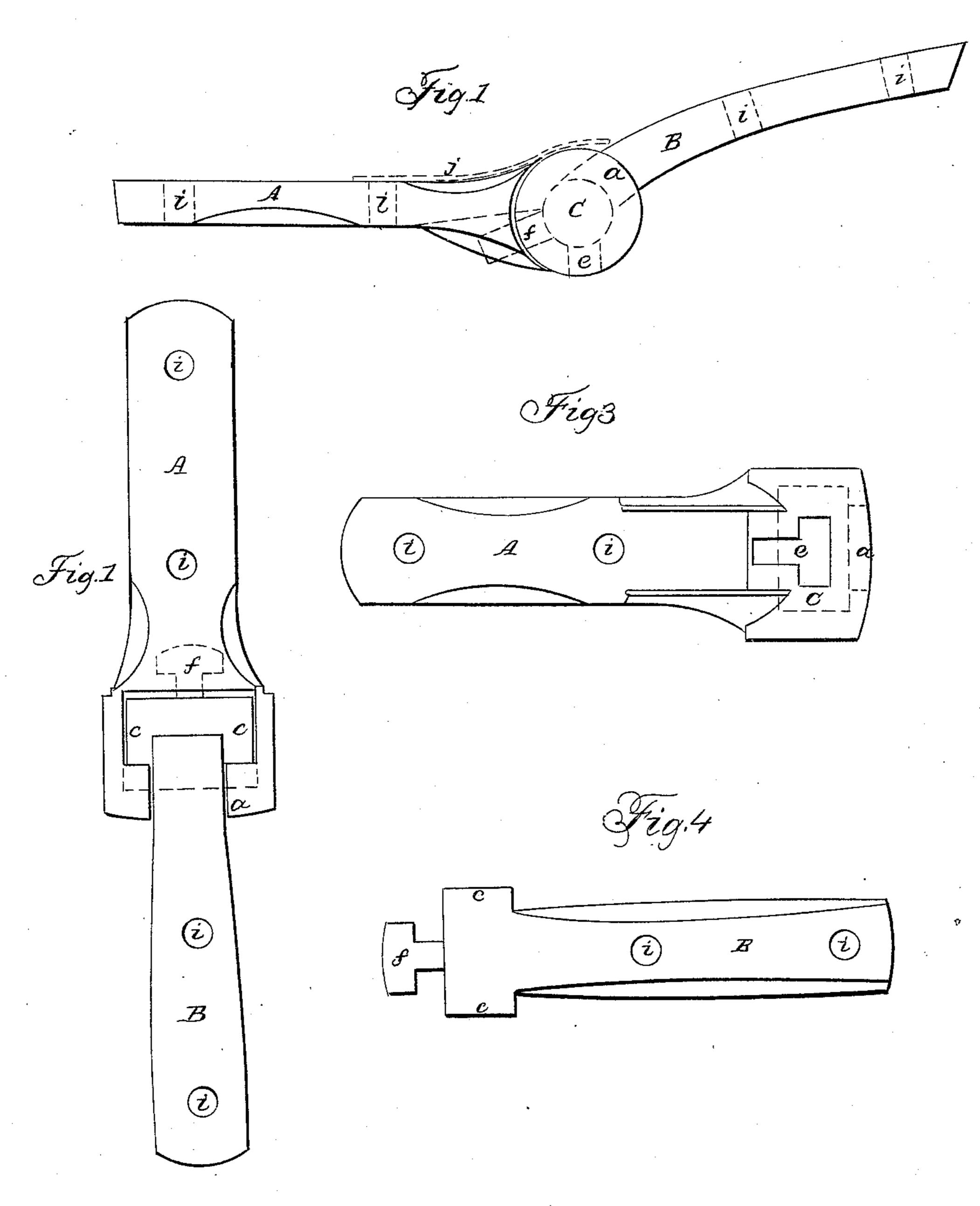
## J. W. D. F. MOON.

Thill-Coupling.

No.  $\left\{ \begin{array}{l} 1,775, \\ 32,779 \end{array} \right\}$ 

Patented July 9, 1861.



Witnesses. 6. PBlakelee. R. B. Brindles

Inventor. J. M. D. F. Moore

## UNITED STATES PATENT OFFICE.

J. W. D. F. MOON, OF COVENTRY, NEW YORK.

## THILLS TO VEHICLES.

Specification of Letters Patent No. 32,779, dated July 9, 1861.

To all whom it may concern:

Be it known that I, J. W. D. F. Moon, of the town of Coventry, in the county of Chenango, State of New York, have invented a simple, new, and useful Improvement in the Construction of the Hinges or Irons for Fastening Thills or Shafts to Vehicles; and the following is a clear and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

Figure 1. shows a top view of the hinge. Fig. 2. is a side view coupled for use. Figs. 3. and 4. are the two parts detached.

To enable others skilled in the art to make and use my invention, I will proceed to describe it more fully, referring to the drawings and the letters marked thereon.

The socket piece (A) which is secured to
the axletree, is made of malleable iron, the
end being enlarged so as to give it sufficient
strength of metal, and have room for the
opening or socket of considerable size, it being made at a right angle with the bar, open
from the upperside to admit the shaft iron
(B) to be inserted by elevating the ends of
the thills and bringing them to a vertical
position. The front of the socket (a) is
open to allow the thill iron (B) to drop
down to the proper position for attaching to
the horse. A piece of leather, or other flexible material, (i) may be placed over and secured to the joint, to keep out water and

dirt. In the bottom of the socket (A) there is an opening through (e) it being T shaped, 35 into which a key, or hook shaped projecting part of the thill iron (B) passes when the thills are inserted; and when the thills are lowered down or brought into a horizontal position the hook or key (f) holds it in 40 place, and makes it impossible to come, or be taken out. The front of the hinge that makes the thill iron is also wrought or cast, made of malleable iron. The projecting parts (c c) are made large and round to fit 45 the socket (C) in the iron (A) the key (f) being cast on it, the holes  $(i \ i \ i \ i)$  to secure them to the axletree, and thills being cast in them, and there being no bolt, nut or screw, the whole thing consists simply of two pieces 50 of metal which may be cast and ready for use without requiring a particle of machine work.

Having thus fully described my invention what I claim as new, and desire to set 55 cure by Letters Patent is—

The projecting hook, or key (f.) or its equivalent, on the rear end of the thill iron (B.) fitted into, and passing through the opening (e.) in the socket iron (A.) sub- 60 stantially in the manner, and for the purposes herein set forth.

J. W. D. F. MOON.

Witnesses:

H. F. Beardsley, James Tuttle.