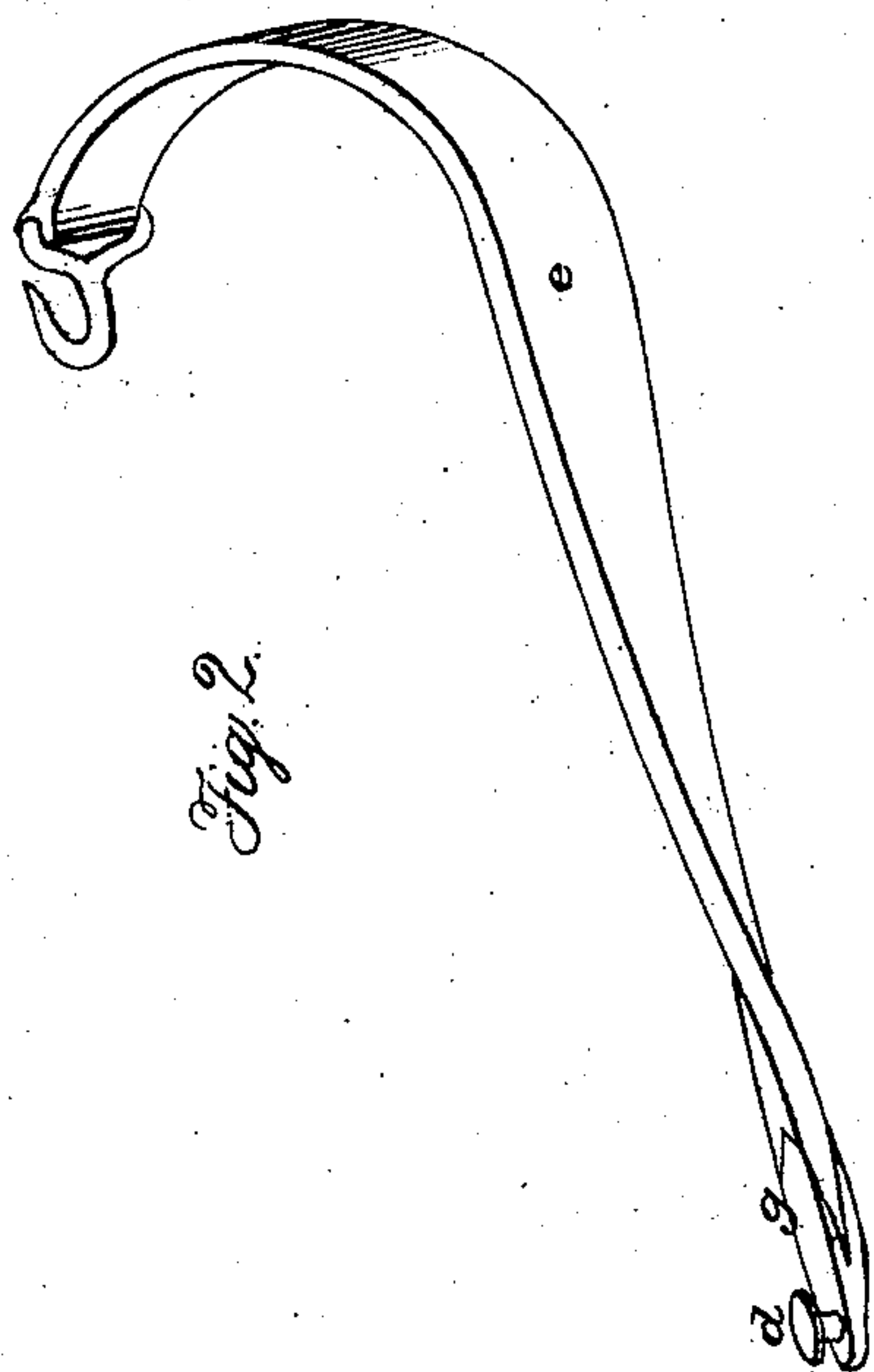
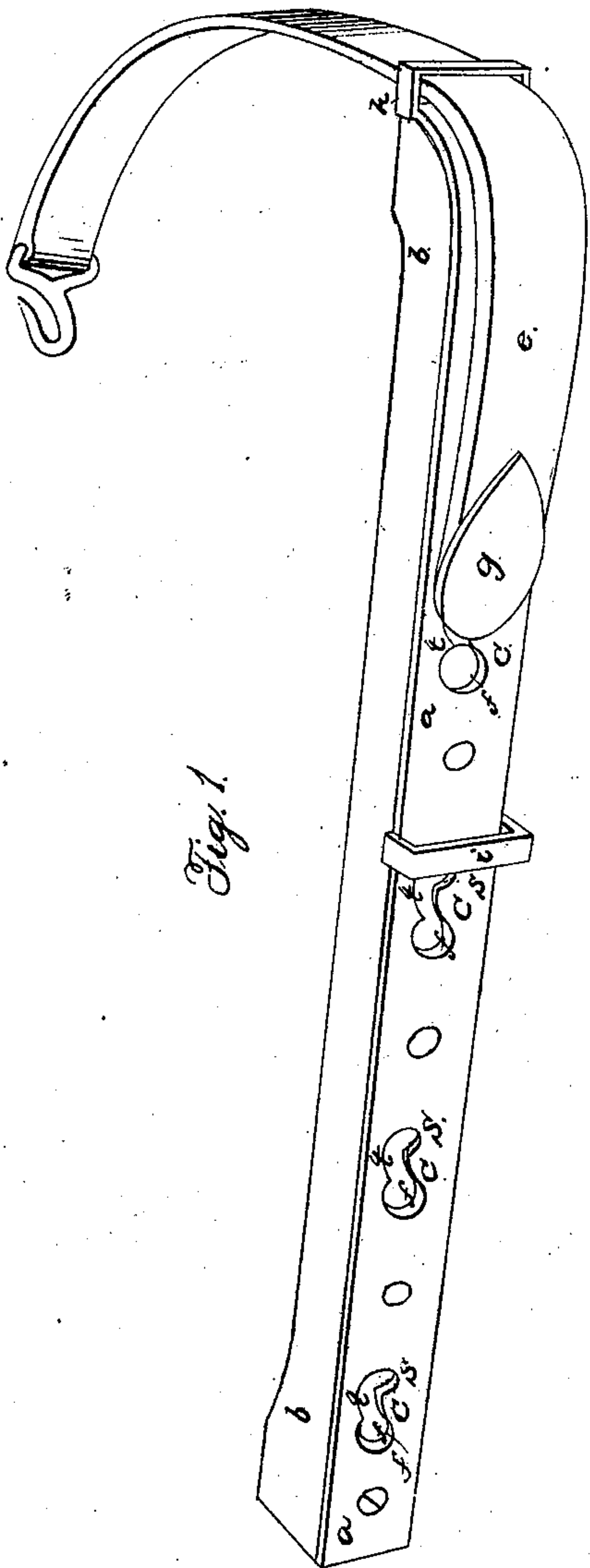


W. DE GARMO.

Whiffletree.

No. 4,919.

Patented Jan. 1, 1847.



UNITED STATES PATENT OFFICE.

W. DE GARMO, OF NORTHUMBERLAND, NEW YORK, ASSIGNOR TO WM. S. ELLISON, OF ALBANY, NEW YORK.

ATTACHING TRACES TO WHIFFLETREES.

Specification of Letters Patent No. 4,919, dated January 1, 1847.

To all whom it may concern:

Be it known that I, WINANT DE GARMO, of Northumberland, in the county of Saratoga and State of New York, have invented
5 a new and useful Improvement in the Mode of Attaching Traces or Tugs to the Whiffletrees of Vehicles; and I do hereby declare that the following is a full, clear, and exact description of my said invention, reference
10 being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a portion of a whiffle tree with the trace, (or lengthening strap of this latter as the case may be,) attached.
15 Fig. 1 shows the connecting stud or button upon the end of the trace or strap.

The same letters refer to the same parts in both figures.

The nature of my invention consists in the
20 peculiar mode in which I attach the traces to the whiffletrees of vehicles; by which mode the buckle at the fore end of the former is dispensed with, thus conducing to the durability and neatness of the harness,
25 while at the same time, the trace is rendered easily adjustable to any required length.

a a is an iron plate firmly screwed to the back of the whiffletree *b b*. It is pierced with a series of peculiarly shaped slots *c c c*
30 &c., the office of which is, to receive and retain the buttonheaded stud *d*, which is attached to the end of the trace, or lengthening strap, *e*.

The portion *f*, of the slots *c c c*, &c., is
35 made large enough to receive the head of the stud *d*, while the width of the opening in the other parts, is only sufficient to allow the passage of the neck thereof.

The wood immediately beneath the slots
40 is cut away so as to allow free passage to the head of the stud. This latter having been entered at *f*, is pushed diagonally upward through the slit *t*, and allowed to fall into the depression at *s*, where it is detained by
45 the diameter of its head being as before

stated, greater than the width of the slot at this part.

The stud *d* projects from an iron plate *g* which is riveted to the end of the trace or lengthening strap *e*. 50

h is a loop of iron attached to the end of the whiffletree, and serving to retain the trace or strap in its proper position, over the end thereof. *i*, is another similar loop. The ends of the whiffletree are rounded off
55 as shown at *k* so as to avoid bending the strap at a sharp angle.

It is obvious that the plate *g* with its stud *d* may be attached either directly to the end of the trace, or that of the lengthening
60 strap, as shown in the drawings.

I do not intend to confine myself to the precise mode of fastening the ends of the traces or straps, to the back of the whiffletrees, which I have herein described, it
65 being obvious that a variety of modes may be used, while the general principle of rendering the trace adjustable by bending it around the rounded end of the whiffletree, and securing it to the back thereof by a se-
70 ries of holes, pins, buttons, or other suitable fastening, is preserved.

What I claim as my invention and desire to secure by Letters Patent is—

1. The mode of attaching traces, &c., to
75 the whiffletrees of vehicles as herein described, viz., by rounding off the end of the whiffletree and passing the end of the trace through a loop attached to the same;—which end may be secured to the back of the whif-
80 fletree either in the mode herein described or in any other suitable manner.

2. I also claim the peculiar mode of securing the end of the trace or strap to the whiffletree, by the use of the button-headed
85 stud and slots, as herein set forth and described.

Witnesses: WINANT DE GARMO.

WM. S. ELLISON,
ORAN OTT.