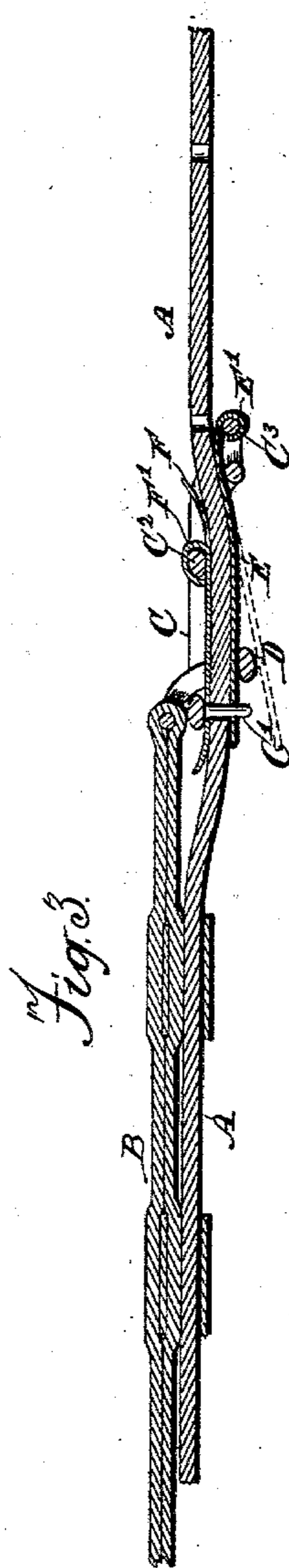
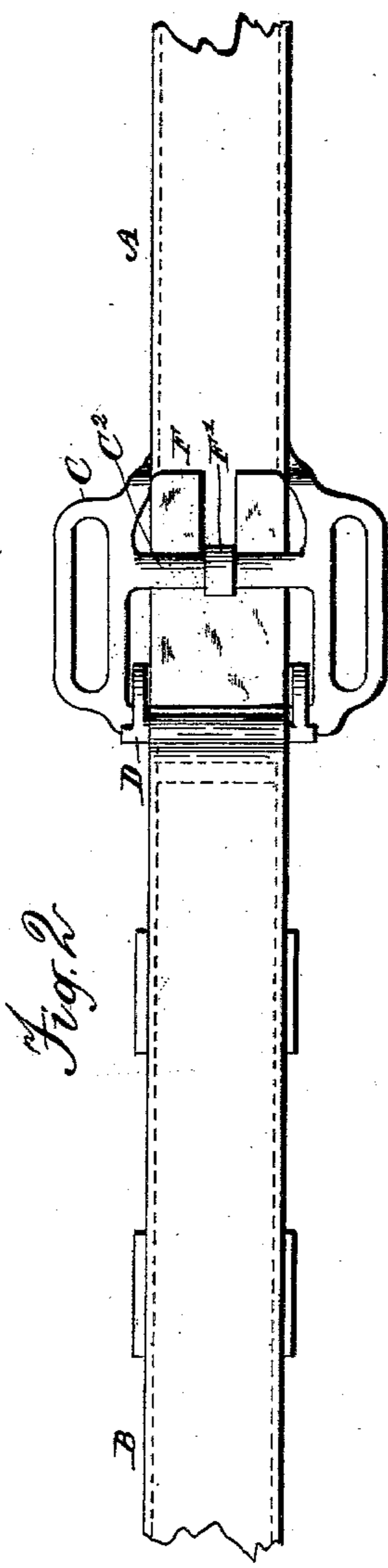
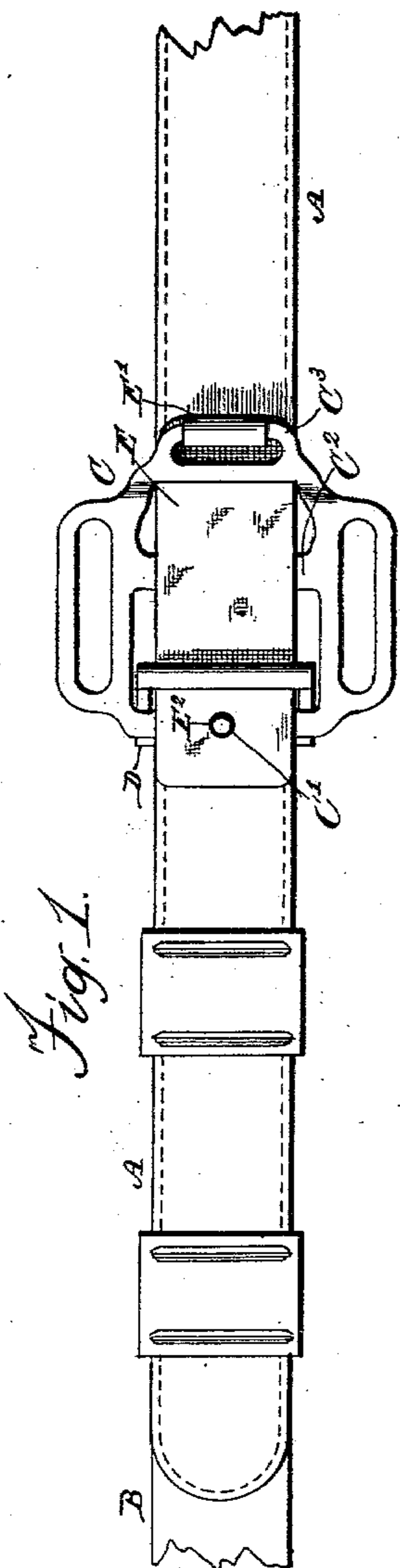


No. 745,495.

PATENTED DEC. 1, 1903.

J. HOLETS.  
HARNESS BUCKLE.  
APPLICATION FILED MAR. 27, 1903.

NO MODEL.



Attest  
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# UNITED STATES PATENT OFFICE.

JOSEPH HOLETS, OF FAIRFAX, IOWA, ASSIGNOR OF ONE-HALF TO A. O. LATIMER, OF CEDAR RAPIDS, IOWA.

## HARNESS-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 745,495, dated December 1, 1903.

Application filed March 27, 1903. Serial No. 149,793. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH HOLETS, a citizen of the United States, residing at Fairfax, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Traces, of which the following is a specification.

The object of this invention is to provide an attachment for trace-buckles, particularly those used on heavy draft-harness, to protect the sides of the trace from the cutting action of the buckle cross-bars and the holes from being elongated by the lengthwise strain of the trace.

The nature of the invention will fully appear from the description and claims following, reference being had to the accompanying drawings, in which—

Figure 1 is a front view of a device embodying my invention as in use. Fig. 2 is a back view of the same. Fig. 3 is a central longitudinal section of the same.

In the drawings, A designates a trace or tug which connects with the swingle-tree, (not shown,) and B the hame-tug. These, as well as the buckle C, are of familiar construction; but in order to a clear understanding of this invention the parts of the buckle will be more definitely pointed out.

The hame-tug is permanently connected to a rectangular loop D, which passes through a suitable opening in the buckle, the sides of the loop bearing on a cross-bar of the buckle when in use and the free end engaging the trace A, as clearly indicated in Fig. 3. This cross-bar of the buckle is provided with the tongue C', which is simply a rigid stud adapted to pass through any one of a series of holes punched through the trace. The trace passes through the buckle in a curved course on one side of a cross-bar C<sup>2</sup> and on the opposite side of a loop C<sup>3</sup>. This buckle is in very general use. In practice, however, the buckle produces two serious injuries to the trace which it is the design of this invention to prevent. One of these is the cutting of the faces of the trace wherever they bear against a cross-bar of the buckle or against the loop D. The other is the stretching out of the holes in the trace due to the direct pull on the buckle-tongue. Either injury tends to permanently

disable the trace long before it is otherwise worn out.

My invention has as its main principle the clamping of the trace between two steel plates which have no sharp edges or short curves to cut the trace and the grip of which tends greatly to relieve the end strain as to the trace-holes, and thus prevent their being stretched out endwise of the trace. The inner one of these plates F (shown as the upper one in Fig. 3) is a practically rectangular piece of sheet-steel with ends turned a little inwardly to allow smooth movement of the trace in lengthening or shortening and hinged to the buckle cross-bar C<sup>2</sup> by a portion of the plate itself slitted down at F'. A hole in this plate fits over the tongue C', and the plate rests on the tongue cross-bar. The outer plate E is practically straight and rectangular in its finished form, but with an eye E', similar to that of an ordinary strap-hinge, embracing the cross-bar of the loop C<sup>3</sup>. When in free position, the plate stands practically as indicated by the dotted lines in Fig. 3; but as the trace is drawn taut it closes down on the trace, as shown by the full outline, the buckle-tongue passing through a hole near its free end. This action serves to pinch the trace tightly between two comparatively broad surfaces, and thus secure the beneficial results above indicated.

When freed from end strain, the trace may be easily manipulated in changing holes to lengthen or shorten, the plates rather helping than hindering this operation.

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

1. The combination with a trace-buckle, substantially as described, of an inner plate attached to the buckle, and with ends slightly curved away therefrom, and an outer plate of flexible material, connected with an outer part of the buckle and springing away from the trace when relaxed, and connections of the trace and hame-tug with said buckle whereby the plates are clamped tightly against the opposite faces of the trace when the same is drawn taut, but are released therefrom as the stress is relaxed.

2. The combination with a trace-buckle

having the part C with tongue C' and cross-  
bars C<sup>2</sup> and C<sup>3</sup>, and the loop D, substantially  
as described, of a plate secured to the cross-  
bar C<sup>2</sup> and having a hole to take the buckle-  
5 tongue, and an outer plate attached to the  
cross-bar C<sup>3</sup>, with a hole to take the buckle-  
tongue, which plates are embraced by the  
loop D, said plates springing to diverging po-

sition when relaxed, but pinching the trace be-  
tween them when the same is drawn taut. 10

In testimony whereof I affix my signature  
in presence of two witnesses.

JOSEPH HOLETS.

Witnesses:

A. O. LATIMER,  
J. M. ST. JOHN.