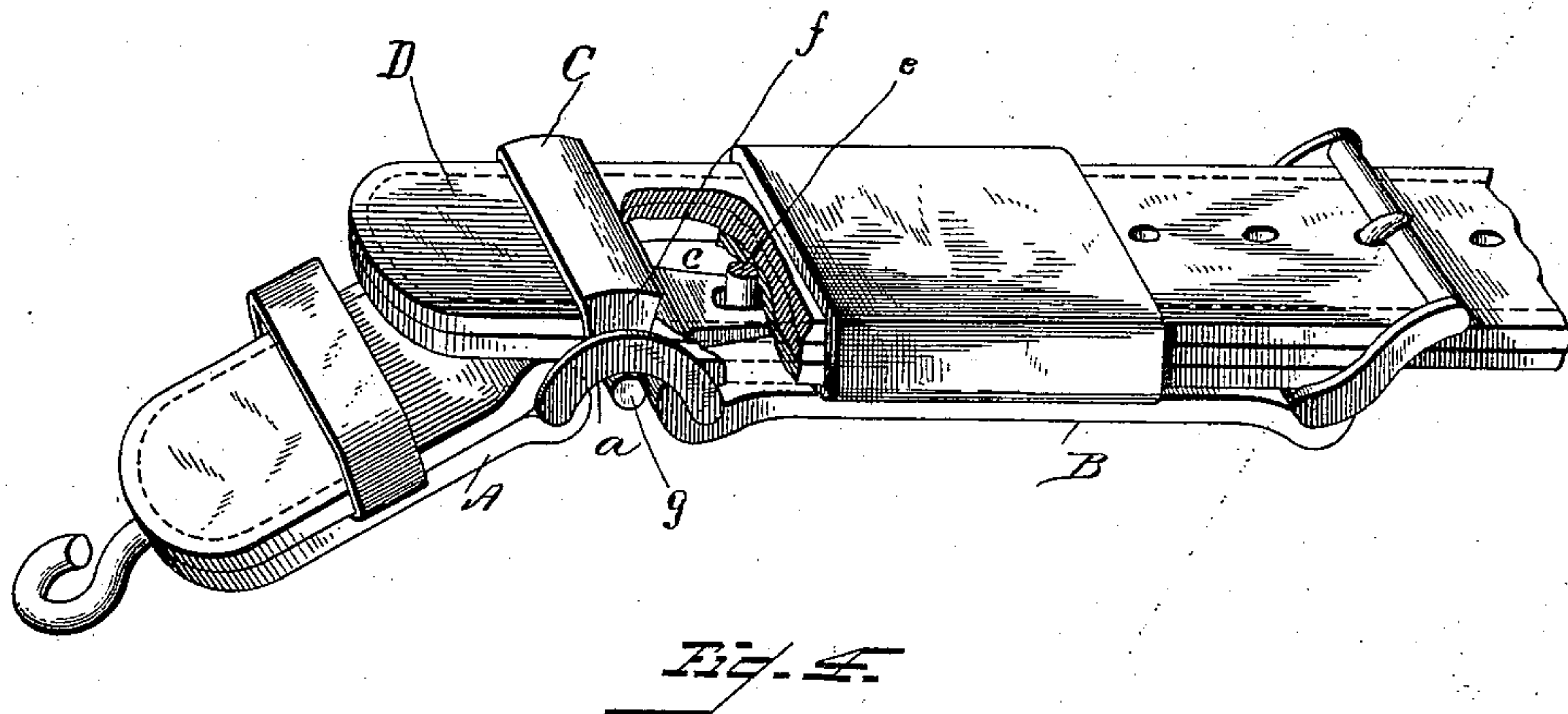
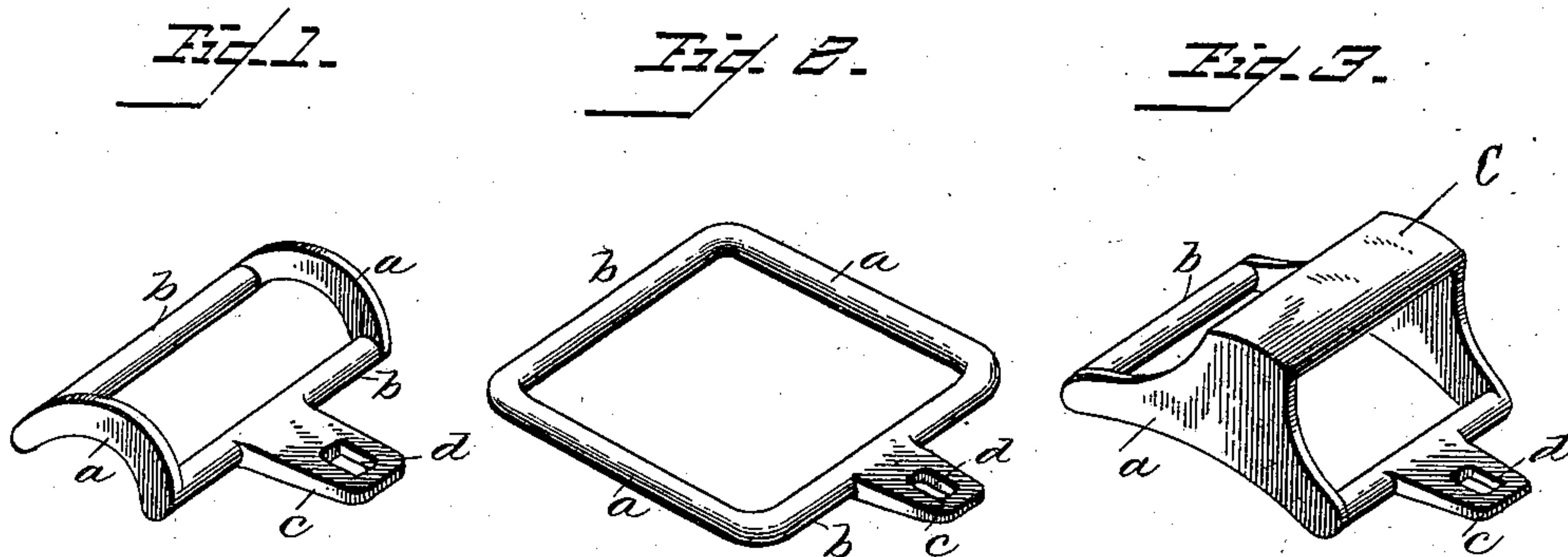


(No Model.)

C. C. SCHWANER.  
HAME TUG ATTACHMENT.

No. 364,048.

Patented May 31, 1887.



Witnesses  
*Wm. L. Smith*  
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# UNITED STATES PATENT OFFICE.

CHRISTIAN C. SCHWANER, OF WINTERSSET, IOWA.

## HAME-TUG ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 364,048, dated May 31, 1887.

Application filed May 10, 1886. Serial No. 201,645. (No model.)

*To all whom it may concern:*

Be it known that I, CHRISTIAN C. SCHWANER, of Winterset, county of Madison, State of Iowa, have invented or discovered a new and useful Improvement in Hame-Tug Sections; and I do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which like letters indicate like parts.

My invention has reference to hame-tug joints; and it consists in the improved construction, hereinafter set forth and explained, whereby the undue shifting or swinging incident to usual forms is prevented and the general construction of the device improved.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a metal harness joint embodying my improvement. Figs. 2 and 3 are like views of modified forms; and Fig. 4 illustrates, in perspective, a harness section provided with my improved joint and removable strap-retaining bridge or loop, also forming one of the features of my improvement.

The said harness joint is provided with end bars, *a a*, which may be either curved or straight, as respectively represented in Figs. 1 and 2, and these said end bars are integrally connected at their ends by means of cross-bars *b b*. One of the said cross-bars *b* is centrally provided with an outwardly-extending lug, *c*, which is provided with a rivet-hole, *d*.

In use the straps *A B* are lapped around the cross-bars *b b*, as represented in Fig. 4, the lugs *c* lying between the upper and lower horizontal portions of the strap *B*. A rivet, *e*, passing through the opening *d* in the lug *c*, and through the upper and lower folds of the strap *B*, rigidly secures the joint in position and prevents its pivotal movement on the in-

ner cross-bar *b*, and likewise opposes any tendency to shift transversely.

In some instances it will be found desirable to employ in connection with the joint a strap-retaining bridge or loop, *C*. In Fig. 3 the said strap-retaining bridge is represented as being formed integrally with the bars *b b*.

In Fig. 4 the bridge *C* is illustrated as being independent and has its depending side portion, *f*, of tapering form, terminating in outwardly horizontally-extending lugs *g*. By using this device the form of joint shown in Figs. 1 or 2 may be employed, in such instance the lugs *g* engaging the under side of the bars *a a*, so that the bridge is properly retained in position to receive and retain the tongue *D*. It will be obvious that the bridge serves both to retain the tongue and coact with the lug *c* in maintaining the joint in its proper horizontal position.

The joint and bridge devices described are simple and cheap in construction, and decidedly efficient and useful in operation.

I claim—

1. In a hame-tug, a joint having end bars and cross-bars and a lug extending from one of the cross-bars, in combination with straps connected to the cross-bars, and the lug lying between the folds of one of the straps, substantially as and for the purpose set forth.

2. The combination, with a hame-tug joint, of a strap-retaining bridge having depending sides terminating in lugs, substantially as set forth.

In testimony whereof I have hereunto set my hand.

CHRISTIAN C. SCHWANER.

Witnesses:

DAVID SIMS,  
HOMER THOMPSON.