

(No Model.)

P. B. COOK.
WHIFFLETREE HOOK.

No. 347,774.

Patented Aug. 24, 1886.

Fig. 1.

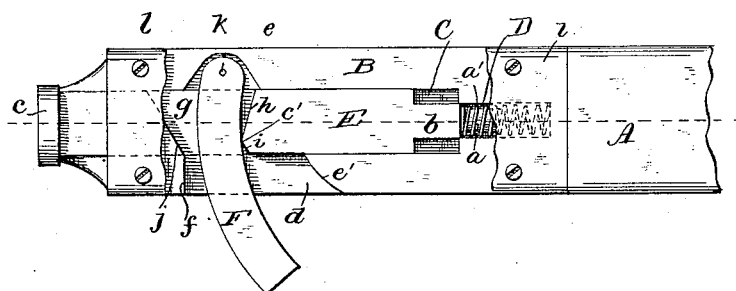
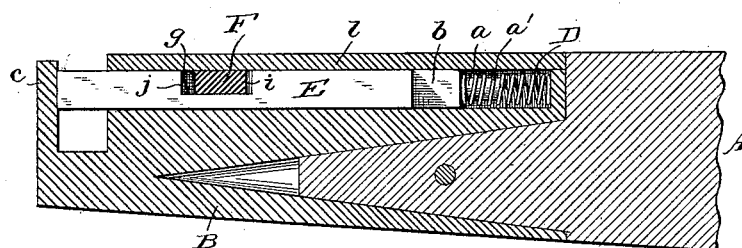


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 347,774, dated August 24, 1886.

Application filed July 7, 1886. Serial No. 207,310. (No model.)

To all whom it may concern:

Be it known that I, PHILANDER B. COOK, of Hastings, in the county of Dakota and State of Minnesota, have invented certain new and useful Improvements in Whiffletree-Hooks or Safety Trace-Fasteners, of which the following is a full, clear, and exact description.

This invention relates to devices known as "whiffletree-hooks," and which are ordinarily employed for securely holding in place the traces when attached to the whiffletree. It relates, however, more particularly to that class of whiffletree-hooks in which a lever or its equivalent is made use of to retract or withdraw the bolt commonly used in such devices. It is desirable in all such devices that the parts should be easily and readily manipulated, and at the same time securely and firmly hold the traces in place without liability of slipping or becoming detached from the whiffletree.

I have discovered that by constructing and arranging the parts of a whiffletree-hook in accordance with my invention I am enabled to easily and quickly secure the traces in or remove them from their positions upon the whiffletree; also to overcome any liability of their slipping or becoming detached from the same when not desired.

The device, as I propose to make it, will be simple, cheap, and durable, and ornamental, and can be removed and replaced by new ones in case of fracture or getting out of order and rendered unfit for further use.

The nature of my invention and the manner in which the same is or may be carried into effect can best be explained and understood by reference to the accompanying drawings, in which—

Figure 1 is a top view with the lid broken away. Fig. 2 is a longitudinal central section.

In the accompanying drawings, A is the whiffletree, of ordinary construction; B, the cap or attachment in which my invention resides, which may be made of any suitable material—such, for instance, as brass, copper, or the like. It may be secured to the whiffletree in any of the well-known ways. In the present instance a central tapering bore is formed in the attachment B, into which fits one end of the whiffletree, and is secured in place thereon by rivets, cement, or the like.

The cap B is mortised or grooved longitudi-

nally, as shown at C and D, to receive a correspondingly-shaped bolt, E, which plays backward and forward therein. The end lettered *a* is made considerably smaller than the bolt proper, E. Surrounding the end *a* of bolt E is a helical or other suitable spring, *a'*, (which fits against a shoulder, *b*, formed on bolt E,) which, when the bolt is in place, has a tendency to force it at all times against the hook *c*, which sets a suitable distance away from the cap B, as shown in the drawings.

Cap B is grooved or cut away on its sides, as at *d e*, about one-half the depth of groove C. Groove *d* is slightly inclined at *e'* and straight at *f*, as shown in the drawings, while groove *e* is a semicircle to receive the end of the lever F.

The bolt E has a groove, *g*, formed therein, which registers with grooves *d e*. Groove *g* is slightly wider than groove *e* and narrower than *d*, and is inclined at *h*, *i*, and *j*, as seen in the drawings.

The lever F, which is slightly curved, and may be of any suitable length, I prefer to make of steel; but it may be made from any other material which will answer the purpose. This lever is fulcrumed at *k*, in groove *e*, and passes through grooves *g* and *d*, as shown in the drawings.

I prefer to cover the several working parts with a removable cover or lid, *l*, which is secured to the top of the cap B by screws, so that in any case of disorder or breakage it can be readily removed and the interior of the same inspected and repaired.

The operation of the device is as follows: Assuming that the trace is upon the whiffletree, and the bolt is projected and forced by the helical spring against the hook *c*, thereby securely holding in place the trace, in order to remove the trace it is necessary to withdraw the bolt. To do this push back the lever F, and it will press against the bolt at the projection *c'*, formed by inclines *h* and *i*, thereby withdrawing the bolt and allowing the trace to be removed from the hook or its place upon the whiffletree, as the case may be. After this has been done, upon removal of pressure from the lever the spring will become expanded, thereby causing the projecting of the bolt against the hook *c*, as usual.

In conclusion, I would state that I do not

restrict myself to the special details of construction and arrangement, inasmuch as the same may be widely varied without departure from my invention.

5 Having described my improvements, what I claim as new and of my own invention is as follows:

1c 1. A whiffletree-hook composed of cap B, having grooves C D and *d e*, spring-impelled bolt E, grooved at *g*, incline *i*, and lever F, all arranged and operating substantially in the manner and for the purposes set forth.

2. The combination of cap B, having grooves C D and *d e*, spring-impelled bolt E, provided with groove *g*, which is inclined at *h i*, and 15 lever F, arranged and operating substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

PHILANDER B. COOK.

Witnesses:

WM. A. PHILLIPS,
JOHN S. HOLLAND.