(Model.)

H. REINHOLD & A. SCHREIBER.

Clip Bolt for Whiffletrees.

No. 233,281. **Patented Oct. 12, 1880.**

Fig. 1.

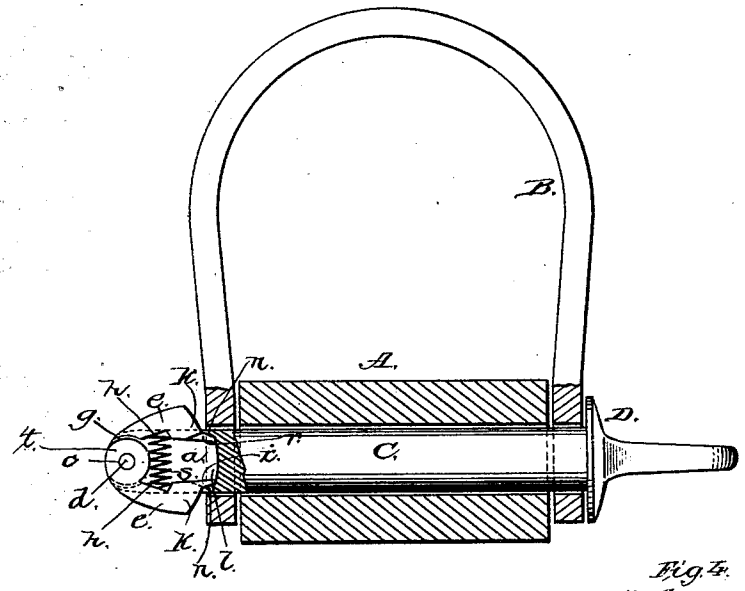


Fig. 4.

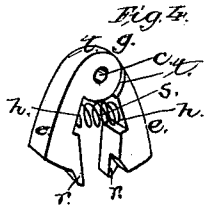


Fig. 6.

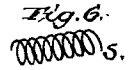


Fig. 7.



Fig. 2.

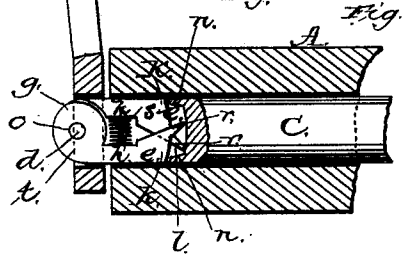
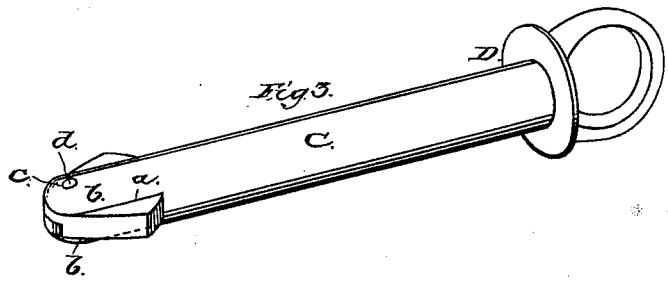


Fig. 5.



Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

HERMANN REINHOLD AND AUGUST SCHREIBER, OF DAVENPORT, IOWA.

CLIP-BOLT FOR WHIFFLETREES.

SPECIFICATION forming part of Letters Patent No. 233,281, dated October 12, 1880.

Application filed July 24, 1880. (Model.)

To all whom it may concern:

Be it known that we, HERMANN REINHOLD and AUGUST SCHREIBER, both of Davenport city, in the county of Scott and State of Iowa, have invented a new and valuable Improvement in Clip-Bolts; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a sectional view of a clip, showing the bolt with the ears out. Fig. 2 is a similar view of the same with the ears in; and Figs. 3, 4, 5, 6, and 7 are details.

This invention has relation to clip-bolts for double-trees and single-trees; and it consists in the construction and novel arrangement of a bolt having a forked end, a recess in the bottom of the fork, and two stop-ears pivoted in the fork and provided with an intermediate spring to separate them automatically, and with end lugs to engage the ends of the recess in the bottom of the fork and prevent the ears from being pressed out too far by the action of the spring, all as hereinafter shown and described.

In the accompanying drawings, the letter A designates a double-tree; B, the clip, and C the bolt, having an ordinary flanged head, D. The point of the bolt is rounded and formed with a squared cleft or fork, *a*, whereof the branches *b* have plain inside walls parallel with each other, and perforations *c* near their ends for the insertion of the pivot *d*, which serves to connect the stop-ears *e* thereto. These stop-ears are rounded at the outer end, and halved also at this end, as shown at *g*, so as to work freely together, and at the same time to fill up the end of the fork. Through these halved ends the pivot *d* passes, and below these ends, on the inside of each ear *e*, is formed a recess, *h*, for the reception of the end of an intermediate spring, *s*, which serves to separate the ears, so that their outer angular portions or stops, *k*, will project from the slot or fork of the bolt when not compressed by external force.

In the bottom of the fork is formed a recess, *l*, having short end walls, *n*, extending between the branches of the fork, and the stop-ears *e* are provided with small lugs *r*, which extend into the recess *l*, and when the ears *e* are expanded serve to prevent them from being pushed out too far from the fork of the bolt. The lower ends, *t*, of the ears are circularly rounded from the pivot-center, so as to move neatly in close relation to the end walls, *n*, of the recess in the fork, keeping the opening closed to dust and other extraneous matter. When applied this bolt will catch immediately and will stay firmly in place.

What we claim, and desire to secure by Letters Patent, is—

A clip-bolt having a forked end and a recess, *l*, formed in the bottom thereof, the stop-ears *e*, pivoted together in the fork and having the recesses *h* and end lugs, *r*, the intermediate spring, *s*, seated in said recesses to separate the ears automatically, and the end lugs, *r*, engaging the ends of said recess *l*, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

HERMANN REINHOLD.
AUGUST SCHREIBER.

Witnesses:
HENRY SCHROEDER,
HENRY ABEL.