J. M. TAPPAN.

WHIFFLETREE HOOK.

APPLICATION FILED JAN. 11, 1909.

948,354.

Patented Feb. 8, 1910.

2 SHEETS—SHEET 1.

FIG. 1.

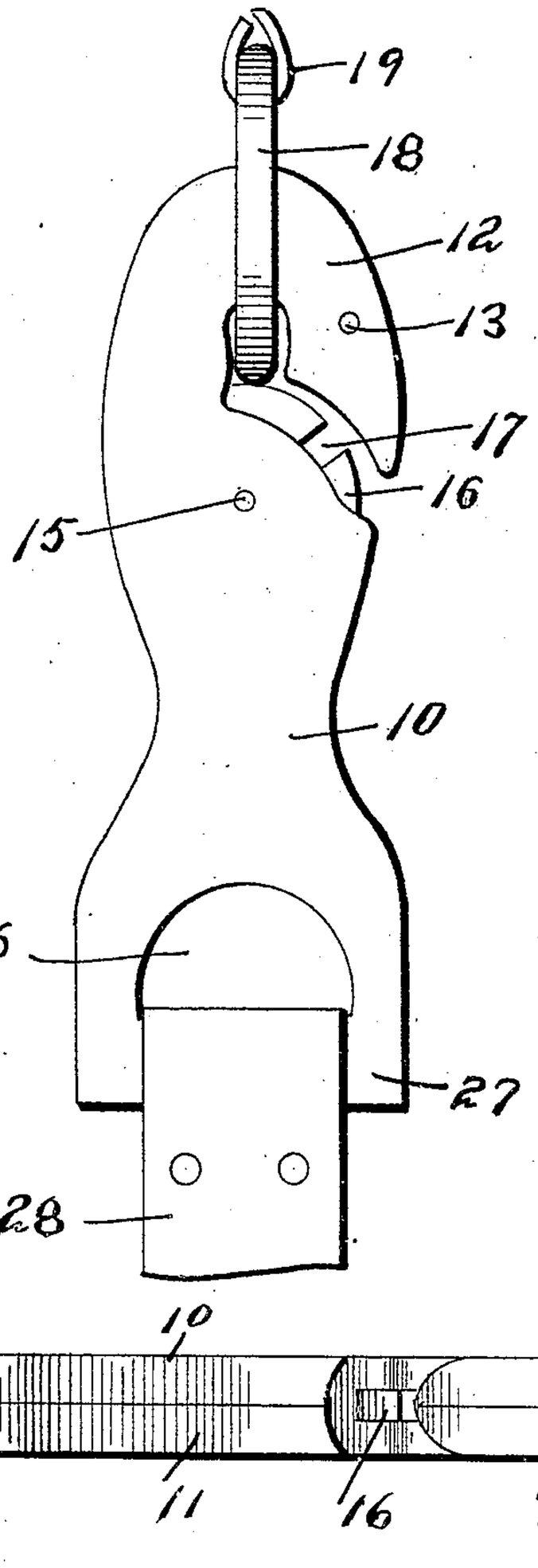

FIG. 2.

Witnesses

E. E. Johansen

E. L. Schundler

Inventor

Jairos M. Tappan

By Woodward & Schundler

Attorneys

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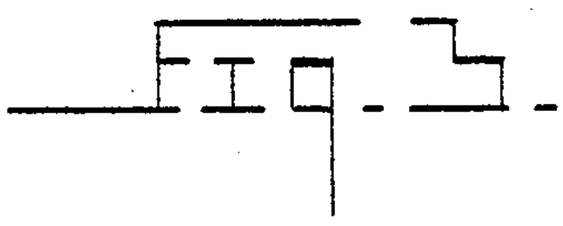

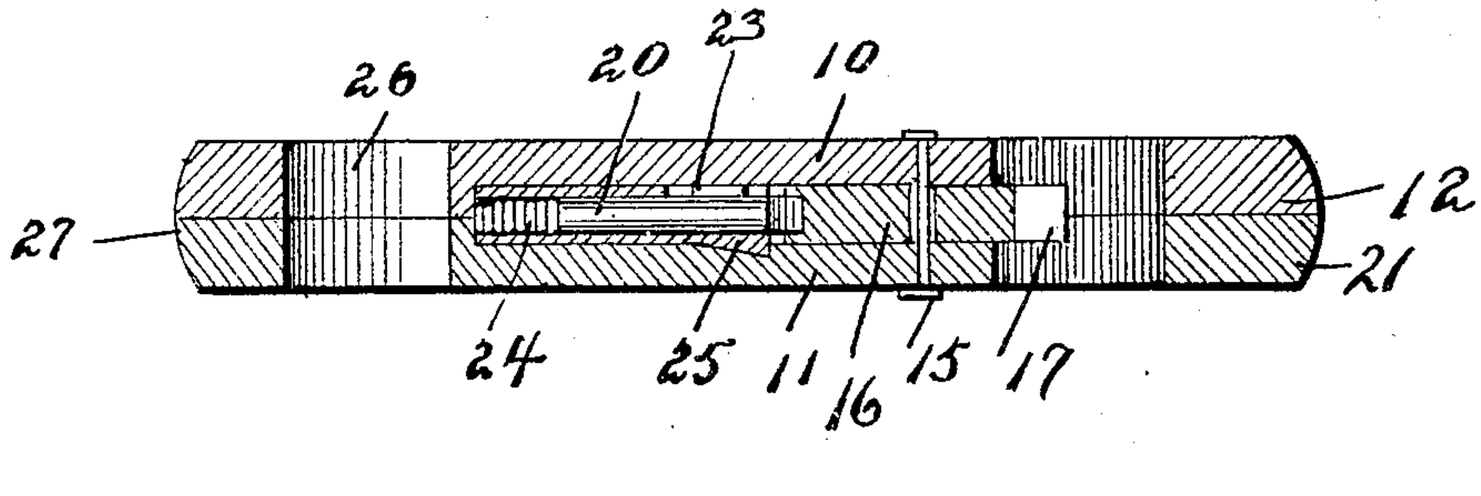

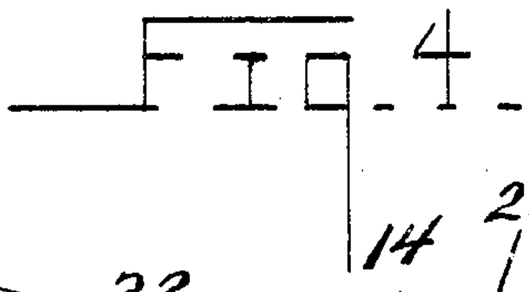

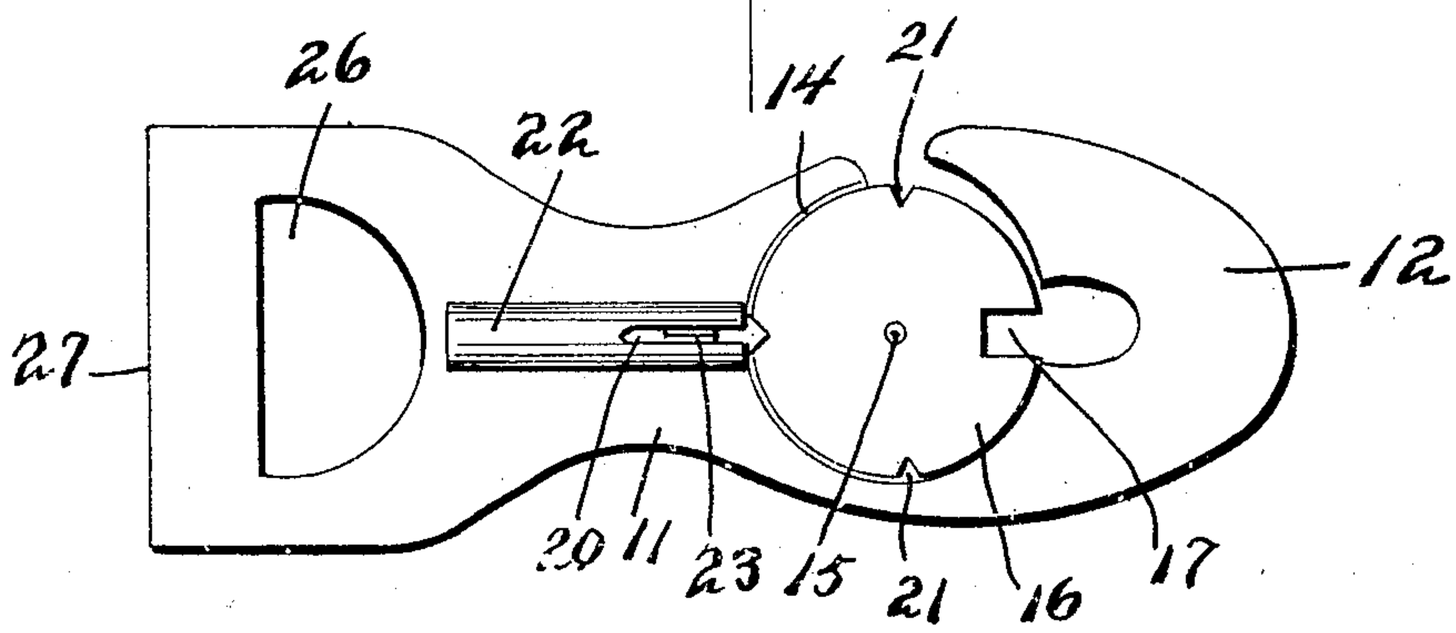

Witnesses

E. E. Johansen

E. L. Chandlee

Inventor

Jairos M. Tappan.

By Woodward & Chandlee

Attorneys

UNITED STATES PATENT OFFICE.

JAIROS M. TAPPAN, OF LUTHER, MICHIGAN.

WHIFFLETREE-HOOK.

948,354. Specification of Letters Patent. Patented Feb. 8, 1910.

Application filed January 11, 1909. Serial No. 471,662.

To all whom it may concern:

Be it known that I, JAIROS M. TAPPAN, a citizen of the United States, residing at Luther, in the county of Lake and State of Michigan, have invented certain new and useful Improvements in Whiffletree-Hooks, of which the following is a specification.

This invention relates to harness and has special reference to that class of devices which are known as whiffletree hooks.

An object of the invention is to provide a hook which can readily be detached and which will hold securely in position when in use and which will not become unfastened upon the subjection of the same to jars or heavy pressure.

The invention has for another object the provision of a device of this character which is of simple construction, which comprises but few parts and one which is applicable to any part of a harness where a device of this nature is employed.

The invention has for a further object the provision of a device of this character which possesses the above enumerated advantages and which, owing to its simplicity of construction, can be economically manufactured.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the device as applied to a whiffletree, Fig. 2 is an edge elevation of the device, Fig. 3 is a longitudinal section through the device, Fig. 4 is a plan view, the upper case section being removed.

Referring to the drawings, 10 and 11 designate the outer case sections of the device and are provided at their outer extremities with laterally formed hooks 12 which lie in parallel and which are secured together in any suitable manner as by means of the rivet 13. Immediately adjoining the hooks 12, the case sections 10 and 11 are recessed to form a cylindrical boxing 14 through which is laterally positioned a pintle 15. The pintle 15 carries a disk 16 which is revolubly mounted upon the same between the two case sections 10 and 11 and is so positioned as to admit of the extending of the edge of the disk 16 outwardly of the boxing 14 in juxtaposition with the inner beveled edges of the hooks 12. The disk 16 is provided in its periphery with a recess 17 for the reception of a ring 18 carried by a trace 19. The disk 16 is positioned in such relation to the beveled edges of the hooks 12 as to admit of the passage of the ring 18 from the same only when the ring is engaged in the recess 17 which is of sufficient size to admit of the positioning of the ring therein. For the purpose of frictionally holding the disk 16 in the desired position, a sliding bolt 20 is employed which is provided at its forward extremity with a beveled edge for engagement in notches 21 formed in the periphery of the disk 16 at predetermined intervals for the purpose of holding the portion of the disk 16 in which is formed the recess 17 in a position to lock the ring 18 in engagement with the hooks 12. The sliding bolt 20 is mounted in a tubing 22 which is provided with a longitudinally formed groove in one side thereof in which is engaged a lip 23 carried by the bolt 20 for the purpose of preventing the rotation of the bolt 20 during the movement thereof when the disk 16 is actuated. A spring 24 is positioned in the rear extremity of the tubing 22 and is engaged against the rear end of the bolt 20 to serve the purpose of forcing the same against the periphery of the disk 16. The tubing 22 is countersunk in the sides of the case sections 10 and 11 and is held from rotative movement therebetween by means of a projection 25 formed upon one side of the tubing and extended into a recessed portion formed in one of the case sections 10 and 11. The opposite extremities of the case sections 10 and 11 are cut away as at 26 to form a bar 27 for the purpose of securing a strap 28 or the like therethrough.

In operation, the disk 16 is so rotated as to bring the recess 17 at the inner end of the hooks 12 when the ring 18 is positioned through the recess 17 and carried into the outer end of the hook by the rotative movement of the disk 16. When the ring 18 is engaged in the outer end of the hook 12, the disk 16 is so turned as to carry the recess 17 away from the ring and to thereby cause the ring 18 to be locked in the hook. The engagement of the sliding bolt 20 in the notches 21 formed in the periphery of the disk 16 serves to hold the disk rigidly at

the various angles in which it is positioned.

The bolt-inclosing tube 22, in which the disk-engaging bolt has reciprocatory movement, will securely hold said bolt between the case sections against any possible rotation, and as the lip 23 is engaged in the slot in said casing, the engagement of the V-shaped outer extremity of the bolt with the notches in the periphery of the disk is insured. The positive operation of the several coöperatively associated elements will thus hold the trace ring in the end of the hook against any possibility of accidental disengagement.

What is claimed is:—

1. A device of the class described comprising two sections, a hook formed upon the outer extremities of said sections, the end of said hook being spaced from said sections to provide a ring-receiving channel, a boxing formed intermediately of said sections adjacent to said hook, a disk rotatably disposed in said boxing, said disk having a radial recess formed in the periphery thereof, a plurality of V-shaped notches formed in the periphery of said disk, a reciprocatory bolt mounted between said sections and having a V-shaped extremity for engagement in said notches, and a spring disposed between said sections and engaging against the inner extremity of said bolt to normally retain the same in frictional engagement with said disk.

2. A device of the class described comprising two sections, a hook formed upon the outer extremities of said sections and having its ends spaced from said sections to provide a channel, the forward end of said channel being longitudinally extended, a boxing formed intermediately of said sections adjacent said hook, a disk rotatably disposed in said boxing, said disk having a radial recess formed in the periphery thereof, a tube mounted between said sections, a longitudinal slot formed therein, a reciprocatory bolt disposed in said tubing, and having a lip integrally formed therewith and disposed in said slot, the outer end of said bolt being disposed in frictional engagement with the periphery of said disk, and a spring disposed between the inner extremity of said bolt and the rear of said boxing and adapted to retain the bolt in frictional engagement with the periphery of said disk.

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

JAIROS M. TAPPAN.

Witnesses:
RALPH M. SMITH,
GEO. HASTINGS.