

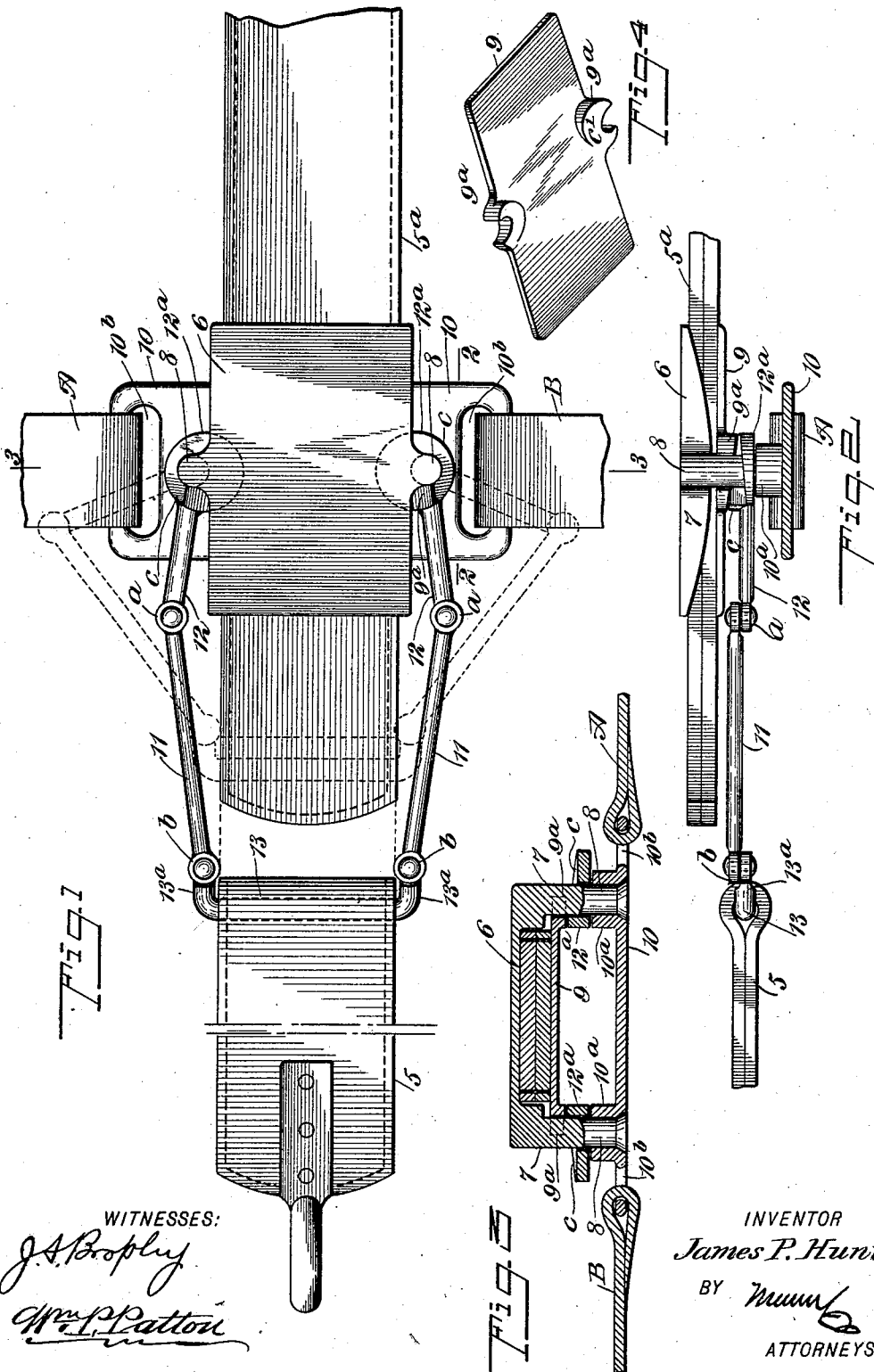
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PATENTED MAR. 10, 1903.

J. P. HUNT.
BUCKLE.

APPLICATION FILED JUNE 28, 1902.

NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES PORTER HUNT, OF MAITLAND, MISSOURI.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 722,511, dated March 10, 1903.

Application filed June 28, 1902. Serial No. 113,595. (No model.)

To all whom it may concern:

Be it known that I, JAMES PORTER HUNT, a citizen of the United States, and a resident of Maitland, in the county of Holt and State of Missouri, have invented a new and Improved Buckle, of which the following is a full, clear, and exact description.

This invention relates to buckles employed to secure together portions of harness for draft-animals, and particularly to such as are employed for adjusting the length of traces or tug-straps, and has for its object to provide a buckle of improved construction which is readily adjusted to lengthen or shorten a tug-strap, which dispenses with perforations in the strap, as is usual when buckles having tongues are employed, and is applicable to straps of various widths and thicknesses.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the buckle applied for holding two portions of a strap together. Fig. 2 is a partly-sectional side view of the same substantially on the line 2 2 in Fig. 1. Fig. 3 is a transverse sectional view substantially on the line 3 3 in Fig. 1, and Fig. 4 is a perspective view of a clamping-plate that is a novel detail of construction.

In the drawings, 5 and 5^a indicate the two ends of a tug-strap connected by the improved buckle, the latter comprising the following details.

An outer rectangular clamping-plate 6 is provided, having two similar guide-flanges 7 formed on opposite side edges of the plate, these flanges defining the maximum width of a strap upon which the buckle may be applied. At the longitudinal center of the clamping-plate 6 two spacing-posts 8 are formed, respectively at the side edges thereof, said posts being so connected at their outer ends with the clamping-plate that they do not obstruct the space between the flanges 7. Another clamping-plate 9 is loosely held ad-

jacent to the outer clamping-plate 6 by the engagement of two notched ears 9^a, formed on the side edges of the rectangular clamping-plate 9 at or near its longitudinal center with the posts 8, and it will be seen that the clamping-plates 6 and 9 are spaced from each other by contact of the ears 9^a with the free edges of the guide-flanges 7, said edges being convex, and thus permit the plate 9 to rock thereon to a limited degree.

A base-plate 10 is held parallel with the outer clamping-plate 6 and transversely of the same by its secured connection with the spacing-posts 8, perforated bosses 10^a being preferably formed on the inner surface of the base-plate, through which the ends of the posts are passed and secured therein by riveting or other means. The base-plate 10 is substantially rectangular, but is rounded on the corners, as shown, and is so proportioned that it extends a proper distance at each side of the clamping-plates 6 and 9, these extended portions each having a transverse slot 10^b formed therein, said slots adapting the base-plate for secured connection with harness-straps—such, for example, as the back-strap A and belly band or strap B.

Two similar cam-levers are employed as means for connecting the two tug-strap portions 5 5^a, each lever comprising two members 11 12, said members being pivoted together, as shown at *a* in Figs. 1 and 2. A coupling-bar 13, consisting of a straight metal rod having short arms 13^a at its ends, is secured upon the portion 5 of the tug-strap, and the arms 13^a are pivoted, as at *b*, upon the adjacent ends of the lever members 11. Upon the other ends of the lever members 12 similar circular enlargements 12^a are formed, these formations being centrally perforated to loosely receive the posts 8 before the latter are secured to the base-plate 10. A spiral wedge or cam face *c* is formed on each enlargement 12^a upon the side surface nearest to a respective ear 9^a, and, as shown in Figs. 2 and 4, a corresponding cam-face *c'* is formed on the face of the ear that contacts with the cam-face *c*. The cam-surfaces *c c'* are so arranged that when the lever members 11 12 are flexed at their joints so as to dispose them as represented by dotted lines in Fig. 1 the low

portions of said opposed cam-faces will be located oppositely, and this will correspondingly relax cam-pressure on the clamping-plate 9, so that the portion 5^a of the tug-strap that is inserted between the clamping-plates 6 and 9 may be freely slid endwise, and thus be adjusted to a desired point. Obviously the flat surfaces of the cam formations *c*, that are opposite from the spiral cam-surfaces, will bear against the true ends of the bosses 10^a, which latter may, if preferred, be in the shape of washers instead of being integral with the base-plate 10. When stress is applied to the portion 5 of the strap, so as to pull it away from the other portion 5^a, the cam-lever members 11 12 will be instantly drawn upon and extended, as shown in Fig. 1. It will be seen that the application of draft strain on either portion of the tug-strap while the other portion is held stationary will rock the cam-faces *c*, so that their highest portions will have bearings upon the high portions of the cam-faces *c'*, and consequently the inner clamping-plate 9 will be forcibly pressed upon the tug-strap member 5^a, clamping the latter against the other clamping-plate 6 in an obvious manner.

In use if the tug or other strap members that are to be connected together by the improved buckle are too thin to be properly clamped and held this may be readily compensated for by the insertion of a liner of any suitable material between either clamping-plate and the member of the tug-strap which said plates are to grip and hold, as this means will so thicken the strap where it occupies the buckle as to adapt the latter to forcibly clamp the strap member and liner, thereby holding the portions of the tug-strap reliably connected together.

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

1. A buckle comprising two clamping-plates, posts on one plate, loosely engaging the other plate, two levers, and cams on an end of each lever, which by rocking adjust-

ment press the clamping-plates toward each other.

2. A buckle, comprising two clamping-plates, two posts on one plate loosely engaging the other plate, two jointed levers, and a cam formation on one end of each lever, said levers receiving support from the posts, the cams when turned around on the posts pressing one clamping-plate toward the other plate.

3. A buckle comprising two clamping-plates, two posts on one plate passing loosely through openings in edges of the other plate, two levers each comprising two members pivoted together, a spiral cam on one end of each lever, said cams having rocking engagement with the posts, and two similar cam formations on opposite edges of one clamping-plate, the cams on the levers engaging the cams on the plate and pressing said plate toward the other plate when the levers are drawn upon, so as to rock the cams thereon.

4. A buckle, comprising two clamping-plates, two posts at the side edges of one of the clamping-plates and engaged loosely by ears on the other clamping-plate, a base-plate secured opposite to and parallel with the clamping-plates by fixture on the ends of the posts, cam formations on the ears on one of the clamping-plates, two levers, each comprising two members pivoted together, a coupling-bar pivoted upon like ends of two of the lever members, and spiral cam formations on the ends of the two other lever members mounted on the posts, and adapted to press the cams on one clamping-plate so as to move said plate toward the opposite clamping-plate, when the levers are extended by a pull on the coupling-bar.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES PORTER HUNT.

Witnesses:

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