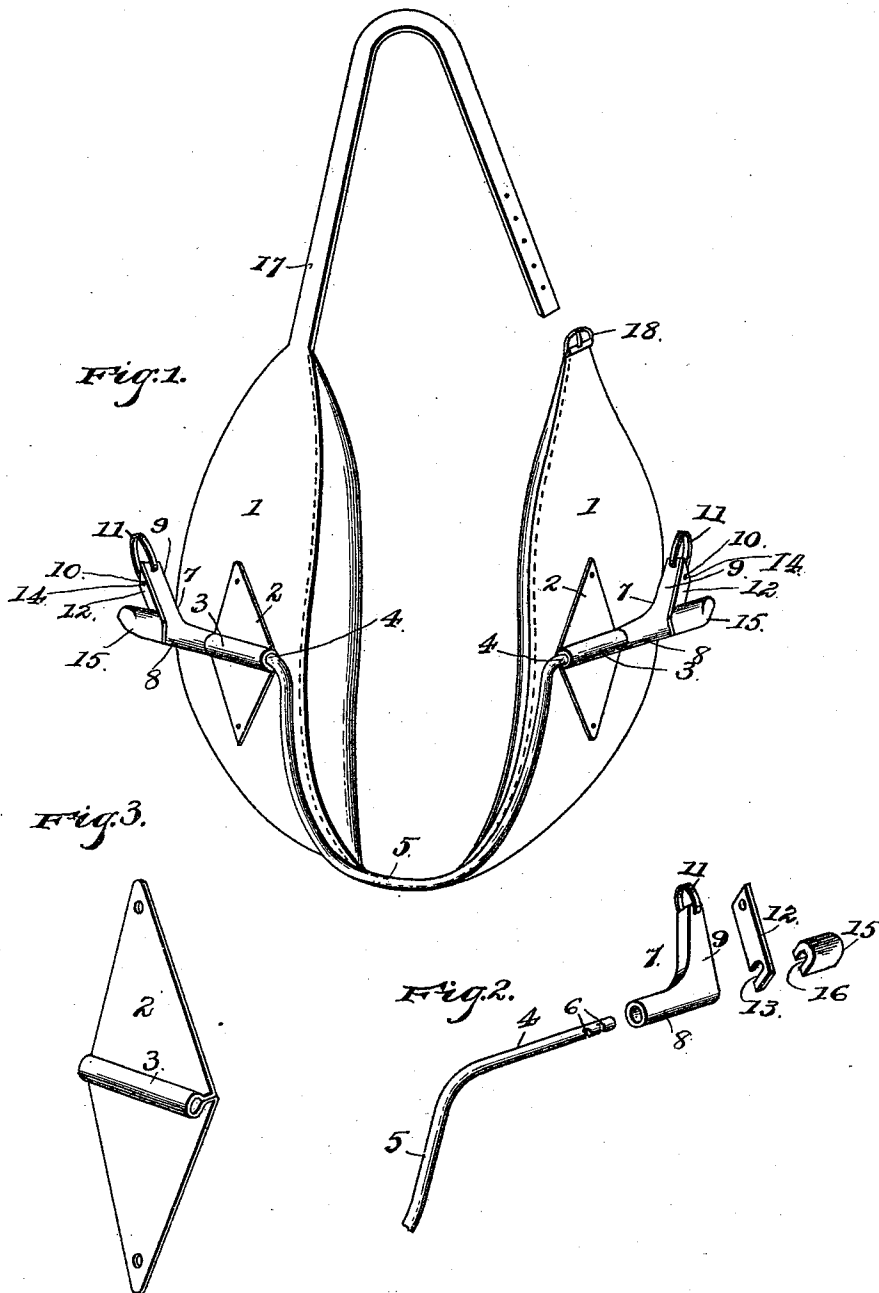


(No Model.)

H. H. SHARTLE.
HORSE COLLAR.

No. 496,541.

Patented May 2, 1893.



Witnesses

B. S. Ober

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UNITED STATES PATENT OFFICE.

HENRY H. SHARTLE, OF RUTHVEN, IOWA, ASSIGNOR OF ONE-HALF TO
GEO. B. F. CHAFFEE, OF SAME PLACE.

HORSE-COLLAR.

SPECIFICATION forming part of Letters Patent No. 496,541, dated May 2, 1893.

Application filed August 1, 1892. Serial No. 441,886. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. SHARTLE, a citizen of the United States, residing at Ruthven, in the county of Palo Alto and State of Iowa, have invented a new and useful Automatic Horse-Collar and Tug-Tightener, of which the following is a specification.

This invention relates to automatically-operating horse-collars and tug or trace tighteners, and has for its objects to secure a corresponding motion of collar-pads with the shoulders of the animal and avoid rubbing or chafing of the shoulders or neck, and also to take up the slack of tugs or traces arising from movement down grade or in backing.

With these ends in view, the invention consists of the construction and arrangement of the parts thereof as will be more fully hereinafter described and claimed.

Referring to the drawings: Figure 1 is a perspective view of a horse-collar embodying the invention. Fig. 2 is a detail perspective view of a portion of the yielding bow and the parts engaging the same. Fig. 3 is a detail perspective view of one of the hinge-plates.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, the numeral 1 designates the right and left pads, that are separate and compose the collar. On each of the pads, at the front thereof, is mounted a hinge-plate 2, having a central eye 3, of elongated form and extending transversely of the pad. The horizontally-disposed laterally-extending straight ends 4 of a yielding or spring bow 5 are rotatably mounted in the said eyes 3 and are extended outward beyond the outer terminations of said eyes, the said extended portions of the ends 4 being formed with square or rectangular notches 6 for the purpose of attachment and to serve as a means of adjustment. Over said ends, outside of the hinge-plates, are removably mounted tug or trace irons 7 having front tubular bearings 8 with rearwardly-projecting arms 9 formed with bolt, rivet, or screw openings 10 at the rear thereof that extend transversely thereinto from the outer edge inward, the rear ends of the said tug or trace irons 7 having

loops 11 secured thereto to which the front ends of the tugs or traces are connected, it being understood that said loops will be situated in such manner as to conveniently accomplish said attachment.

The tug or trace irons are caused to move with the bow 5 by means of hasps or keepers 12, having notches 13 that coincide with the notches 6 of the ends 4 of the bow, and the opposite sides of the hasps or keepers being flat and portions thereof being caused to enter the notches 9, the same are prevented from turning on the said ends 4. The hasps or keepers are placed against the outer edges of the tug or trace irons, and the rear ends of the same are connected to the rear ends of said tug or trace irons by screws, rivets or bolts 14, passed therethrough and into the opening 10 of the arms 9 and over the projecting portions of the ends 4 that still remain uncovered are fitted caps 15 with slots 16 therein for the purpose of ready application to the said ends to protect the same and prevent contact thereof with adjacent objects. The bow 5 depends and lies over the lower portions of the pads, and when the pads are pressed out or drawn in in going up or down hills or grades and loosened in backing, the said bow partakes of the same movement and turns the ends 4 thereof to raise or lower the tug or trace irons and consequently regulate the tugs or traces connected thereto. The upper part of one pad 1 is provided with a long pliable strap 17 that is passed over the animal and adjustably attached to a buckle 18 that is secured to the upper portion of the opposite pad and serves as a convenient means of applying the collar, and also avoids rubbing and chafing of the neck.

The tug or trace irons may be made of any suitable length, as will be readily understood, to accommodate different purposes and compensate for different sizes of the device.

The device as herein set forth is simple and effective in its construction and operation, and forms a convenient improvement in harness, and at the same time prevents dragging of the tugs or trace-chains in coming down grade, as well as in backing, by taking up the slack of the same automatically, and also

avoids engagement of the same with adjacent objects.

Having thus described the invention, what is claimed as new is—

- 5 1. The combination of pads, hinge-plates connected to said pads, a yielding bow having oppositely-projecting ends mounted in said hinge-plates, tug or trace irons mounted on said ends and provided with loops at the rear
10 end thereof, and hasps or keepers connected to said tug or trace irons and the said ends of the bow, substantially as described.
2. The combination of pads, hinge-plates attached to said pads, a yielding bow having op-

positely-projecting ends mounted in said 15 hinge-plates and formed with notches, tug or trace irons mounted on said bow ends, hasps or keepers attached to said irons and provided with notches to engage the aforesaid notches, and caps mounted over the terminating por- 20 tions of said bow ends, substantially as described.

Witness my hand this 16th day of July, A. D. 1892.

H. H. SHARTLE.

Witnesses:

J. H. BAUMER,
JOHN KJOUNOE.