

E. T. WHITING.
HORSE COLLAR.
APPLICATION FILED NOV. 26, 1906.

Patented Mar. 8, 1910.

951,469.

Fig. 1.

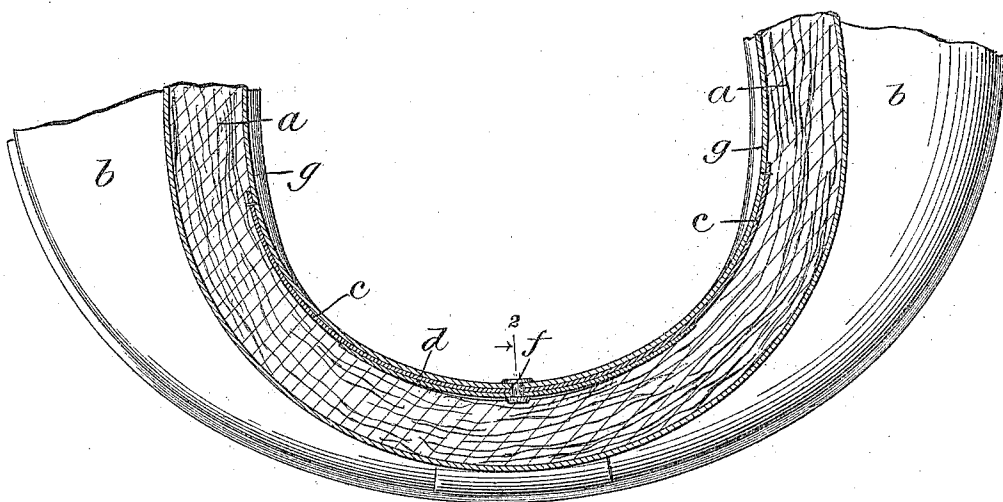


Fig. 2.

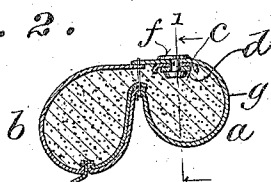


Fig. 3.

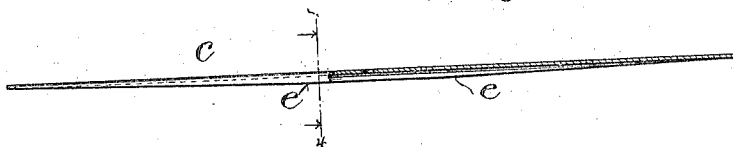


Fig. 4.



Fig. 5.



Witnesses:
Fred Palm
Chas. L. Cox.

Inventor:
Ezra T. Whiting
By Winkler, Flinders, Smith, Rother, & Threlkeld,
Attorneys.

UNITED STATES PATENT OFFICE.

EZRA T. WHITING, OF DARTFORD, WISCONSIN.

HORSE-COLLAR.

951,469.

Specification of Letters Patent.

Patented Mar. 8, 1910.

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To all whom it may concern:

Be it known that I, EZRA T. WHITING, a citizen of the United States, residing at Dartford, in the county of Green Lake and State of Wisconsin, have invented certain new and useful Improvements in Horse-Collars, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

The main objects of this invention are to strengthen and preserve the shape of the collar at the throat and prevent its becoming weakened and being broken at that point by repeated bending and by compression of the hames, and to facilitate putting the collar on and taking it off from a horse, particularly when the collar opens at the top.

It consists in certain novel features of construction and in the peculiar arrangement and combinations of parts as hereinafter particularly described and defined in the claims.

In the accompanying drawing like characters designate the same parts in the several figures.

Figure 1 is a front elevation and vertical section on the line 1 1, through the rim of the throat portion of a horse collar to which the invention is applied; Fig. 2 is a cross section on the line 2 2, Fig. 1; Fig. 3 is a detached side view and partial longitudinal section of the nonresilient flexible metallic stiffening strip straightened; Fig. 4 is a cross section thereof on the line 4 4, Fig. 3; and Fig. 5 is a detached view of the curved metallic spring, preferably used in connection with the nonresilient flexible strip to reinforce the throat portion of the collar.

The throat reinforcement and stiffener constituting the invention is applied to an ordinary horse collar, as shown in Figs. 1 and 2, comprising the usual roll-shaped rim or fore wale *a* and padded after wale *b*. It consists in its preferred form of a nonresilient flexible metallic stiffening strip *c* and a curved spring *d*. The strip *c* is preferably formed on the under side with longitudinal marginal flanges *e*, which diminish in width toward its ends, as shown most clearly in Fig. 3. This strip, which is designed to extend around the curve at the lower end of the collar forming the throat portion, may be prolonged if desired, even to the upper end of the collar. The spring *d* which may be conveniently made of steel, is curved to correspond with the throat of

the collar, and is secured by a central rivet *f* to the under side of the strip *c* between its flanges and to the leather casing *g* of the collar on the upper side of the throat within the rim *a*.

To facilitate stuffing the rim with straw in the usual way, the strip *c* is primarily made straight or straightened, as shown in Fig. 3, when it is secured by the rivet *f* with the spring *d* to the inner side of the casing *g* within the rim *a*, and it is made sufficiently stiff to resist the tension of the spring *d* and to hold the stiffener straight while the collar is being stuffed. The ends of the strip *c* may be stitched or otherwise fastened to the casing, as shown in Fig. 1, to hold them in place until the rim is filled. After the throat of the collar has been stuffed, it is bent to the desired form with the stiffening strip *c*, the spring *d* tending to produce and maintain the proper curvature.

The reinforcement constructed and applied as shown and described, stiffens and strengthens the collar in the throat where it is most liable to become weakened and to be broken by frequent bending in putting it on and taking it off from a horse, and by the compression of the hames. It is entirely concealed except the head of the rivet *f*, and does not disfigure the collar. The rivet head may be marked or otherwise made to indicate to purchasers that the collar is provided with this internal throat stiffener.

Applied to collars which open at the upper ends, this reinforcement or stiffener materially assists in putting the collars on and taking them off from horses, since it supports the detached ends of the collars in place and prevents the farther sides from falling, as they do when the throats are broken or materially weakened.

I claim:

1. The combination with a horse collar of a flexible stiffening strip and a spring curved to correspond with the throat of the collar and secured with the stiffening strip within the roll and to the casing of the collar around the throat, substantially as described.

2. The combination with a horse collar of a nonresilient flexible metallic stiffening strip and a curved spring secured together to the casing on the upper side of the throat within the rim or fore wale of the collar, substantially as described.

3. The combination with a horse collar of a nonresilient flexible metallic stiffening strip

and a curved spring secured together at the center by a rivet to the casing on the upper side of the throat within the rim or fore wale of the collar, substantially as described.

- 5 4. The combination with a horse collar of a nonresilient flexible metallic stiffening strip flanged on the sides and a curved spring secured with said strip between its flanges to the casing by a rivet on the upper side of

the throat within the rim or fore wale of the collar, substantially as described. 10

In witness whereof I hereto affix my signature in presence of two witnesses.

EZRA T. WHITING.

Witnesses:

I. M. CHAPEL,
R. H. PARRY.