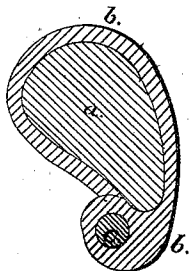


*W. Kays,
Horse Collar*

No 104,035.

Patented June 7, 1870.



WITNESSES:

*Henry W. Pragg.
J. W. Hammond.*

INVENTOR:

*William Kays
by his atty. J. L. Newton*

United States Patent Office.

WILLIAM KAYS, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF,
CHARLES IRVING, AND JAMES B. FORSYTH, OF SAME PLACE.

Letters Patent No. 104,035, dated June 7, 1870.

IMPROVEMENT IN HORSE-COLLARS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM KAYS, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Horse-Collar; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference thereon marked making a part of this specification.

The figure in the accompanying drawings is a section of the collar, showing the cork filling *a*, the rubber covering *b*, and the metallic stiffening *c* of the rim of the collar.

The invention is a horse-collar, the filling of which is cork, or any suitable material, and around which filling is molded, in proper shape, India rubber or some other vulcanized material, and into the rim of which is incorporated with the rubber or other vulcanized material an iron or other metallic rim or roll, for the purpose of giving stiffness or stability to the collar.

The explanation of its use and mode of construction is herewith given, that others may understand its nature and use, and be able to manufacture the same.

The covering of horse-collars usually has been made of leather or some textile fabric, stitched about a filling made of straw, hair, or some kindred material, and the collar, so constructed and in constant use, soon wears out where stitched together, when the filling works loose, and the collar is worthless.

I have constructed a collar, the filling of which is made of cork, filled in, as seen in the drawings marked *a*, the cork being cut in one or more pieces, as may be convenient, and shaped as the filling in ordinary collars is.

Having this filling so formed and prepared, I mold about it India rubber or other vulcanizable material, in the usual form of horse-collars, making the rubber or other vulcanizable material an eighth or quarter of an inch in thickness, or thereabouts.

Within the roller-rim of the collar I have incorporated with the rubber, a roll of iron or some suitable metal, for the purpose of giving the necessary stiffness and support to the roll of the collar, and also so that the collar may be bent or fitted so as to conform to the neck of the horse.

After the rubber or vulcanizable material has been molded about the filling and the metallic roll, as de-

scribed, it is then subjected to the well-known process of vulcanization, and hardened as much as may be desirable for the purpose intended.

The collar may be open at the top and fastened when in use with any suitable fastening, or it may be closed at the top, as may be desirable.

The advantages of this collar over others now in use are these:

The filling being composed of cork and imperviously covered, is indestructible; it is also very elastic; it will keep in place, and there will be no bunches or protuberances in the collar, as is often the case when worn, and when the outer covering is worn out or damaged it can be used again.

The rubber is also easy elastic, durable, can be molded into any shape, and made to fit about the neck of the horse, and when worn out in any part, the part remaining can be reduced and molded again for the same purpose, so that, in the filling and covering, there is no waste when worn out.

The use of the iron roller-rim is to give stability to the collar, and it may be bent so as to fit the shape of the neck of the horse.

The collar will be light, as cheap or cheaper than the ordinary constructed collar, will be much more durable and pliable to the neck, and therefore, of great practical utility to the public.

I am aware that rubber has been used, in combination with leather and some textile fabrics, about the parts bearing upon the neck of the horse, the same being stitched or cemented together. I disclaim this mode of constructing horse-collars.

What I claim as my invention, and desire to secure by Letters Patent, is—

A horse-collar, made from one or more pieces of cork, and which, after being cut and trimmed into proper shape, has molded about it a water-proof covering of rubber or other water-proof material, as here-in set forth.

Also, an iron or other metallic stiffening, when covered by and concealed within the roll of the collar, substantially as and for the purpose set forth.

WM. KAYS.

Witnesses:

J. L. NEWTON,
CHAS. IRVING.