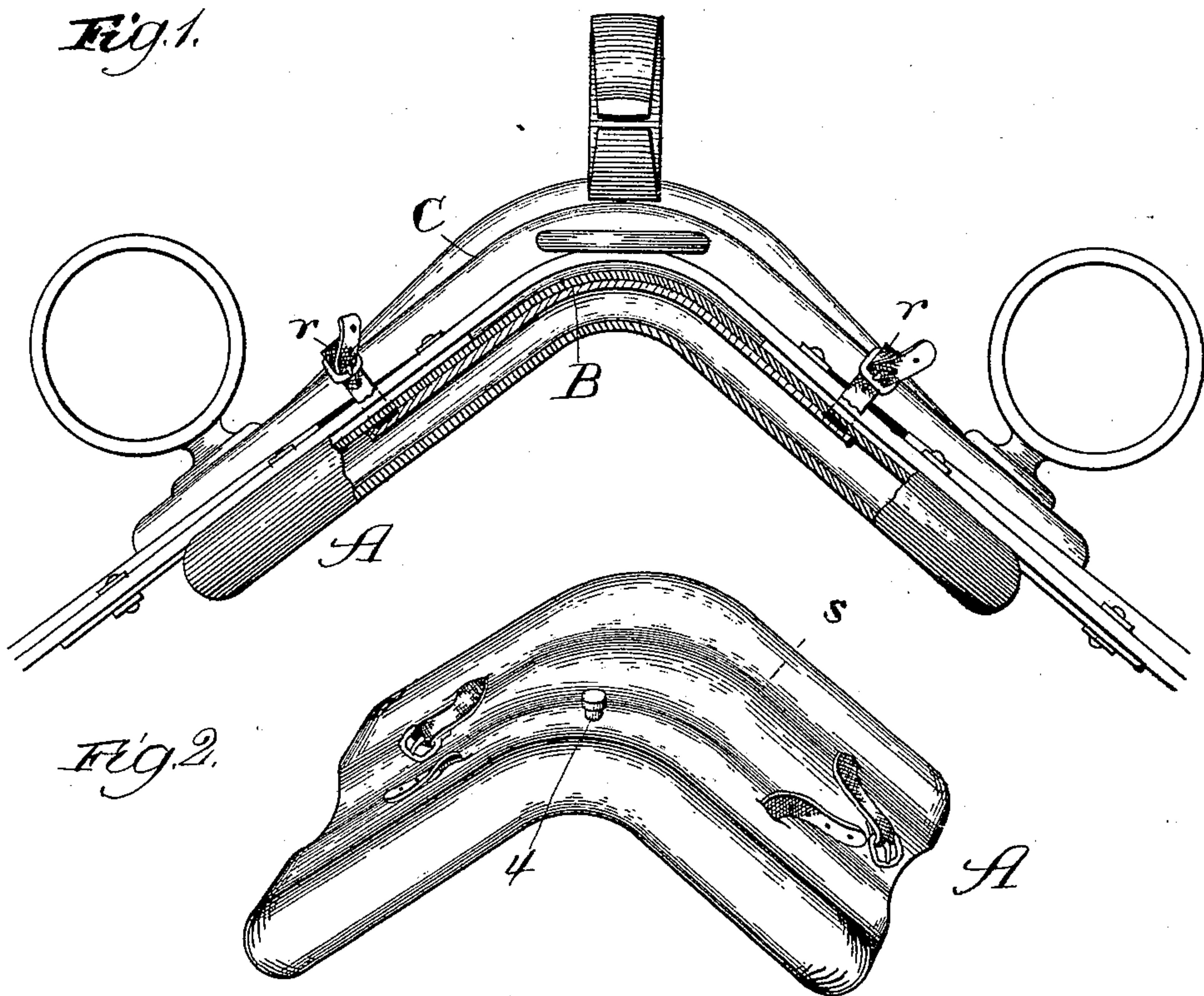


(No Model.)

W. D. UNDERWOOD.
HARNESS PAD.

No. 481,289.

Patented Aug. 23, 1892.



Witnesses:

Chas. E. Gaylord.
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UNITED STATES PATENT OFFICE.

WILLIAM D. UNDERWOOD, OF CHICAGO, ILLINOIS, ASSIGNOR OF TWO-FIFTHS TO WILLIAM E. PARDRIDGE, OF SAME PLACE.

HARNESS-PAD.

SPECIFICATION forming part of Letters Patent No. 481,289, dated August 23, 1892.

Application filed February 2, 1892. Serial No. 420,043. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. UNDERWOOD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Harness-Pads, of which the following is a specification.

My object is to provide a harness-pad for use under gig-saddles and collars of soft rubber or other flexible material substantially impervious to air or other fluids with which it is inflated, having by preference an unobstructed interior throughout, so that the fluid contents may readily pass from one part to the other to cause distension of the latter when the former is collapsed, and provided at its upper side with a lining of suitable stiffening material which conforms to the shape of the under surface of the harness.

In the drawings, Figure 1 is a view of my improved pad with a harness-saddle secured thereon, the end of the pad being partly broken away to illustrate its construction; and Fig. 2, a perspective view of the pad.

The pad A is in the form of a hollow sack, as shown, and is made of soft rubber or other flexible material impervious or substantially impervious to air and other fluids. The pad is adapted to be inflated with air or other fluids, and for this purpose it is provided with a suitable valve *t*. On the inner face of the upper side of the pad I provide reinforcing material B, which may comprise a sheet of stiff leather or other suitable material, or a frame of wood, metal, or the like. The reinforcing material conforms in shape approximately to the under surface of the gig saddle or collar to be imposed upon the pad, and is secured with cement or otherwise to the inner face of the pad.

I prefer to construct the pad with a depression *s* across its upper surface in which the saddle or collar rests, and with means for attaching it to the saddle or collar, as the buckle-straps *r*, shown. The straps are for greater security secured at their ends to the stiffening material B, and extend out through slits provided in the pad material. The pad and gig-saddle C (illustrated in the drawings) are secured together by passing the straps over the latter and buckling them,

and when thus secured the saddle and pad may be removed and replaced upon the horse without detaching them from each other.

In the use of the pad the under surface thereof will conform to the back of the horse and distribute the pressure of the superimposed portion of the harness equally or substantially so over the entire area of the horse's back covered by that portion of the harness. As the collars and saddles are fastened in the usual way about the horse's neck or body, inequality in the pressure exerted between opposite sides of the collar or saddle will depress the upper layer of the pad under the overweighted side and force the fluid contents of the pad toward the opposite side, thus increasing the pressure on the latter side to an approximately proportionate extent. The flexible nature of the material of which the pad is composed permits the upper side of the pad to move to a limited extent without disturbing the under surface.

The ordinary shifting back and forth of the saddle or collar while in use will not affect the under side of the pad, and the latter will rest firmly in position, thus preventing chafing or galling of the horse's body.

The reinforcing material may, if desired, be of the same material as that of which the pad is composed, and the reinforcing effect produced by thickening the material.

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

A harness-pad comprising an inflated sack A of flexible material substantially impervious to air, conforming at its under surface to the shape of the animal's back and presenting an unobstructed chamber, a layer B of stiffening material on the upper inner surface of the sack, the layer and upper surface of the sack being formed with a permanent depression *s*, extending entirely across the pad to receive the superimposed harness, and means upon the pad for holding the harness in the said depressed portion comprising straps *r*, secured to the stiffening layer, substantially as described.

WILLIAM D. UNDERWOOD.

In presence of—

J. N. HANSON,
M. J. FROST.