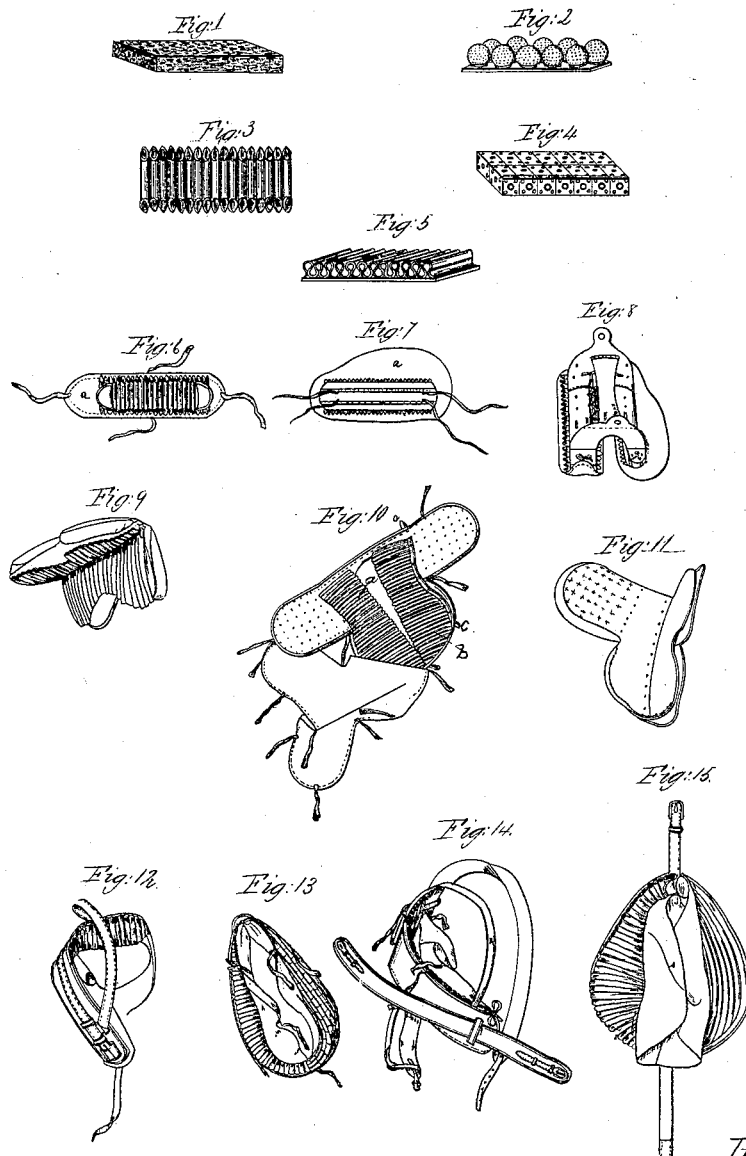


*A. Angeline,*  
*Riding Saddle,*  
*Nº 53,932,* *Patented Apr. 10, 1866.*



*Witnesses*  
*Jos. L. Coombs*  
*Per*

*Inventor:*  
*A. Angeline*  
*by J. H. H. H.*  
*his atty*

# UNITED STATES PATENT OFFICE.

ACHILLE ANGELINI, OF GENOA, ITALY.

## IMPROVEMENT IN SADDLES AND HARNESS.

Specification forming part of Letters Patent No. 53,932, dated April 10, 1866.

### *To all whom it may concern:*

Be it known that I, ACHILLE ANGELINI, major-general and aid-de-camp to his majesty the king of Italy, of Genoa, in the Kingdom of Italy, have invented certain new and useful Improvements in the Manufacture of Saddles, Harness, and other like articles; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings.

The object of my invention is to use with saddles, harness, and collars elastic cushions or pads of various forms, hereinafter explained, in place of the blankets, saddle-cloths, stuffing, and pads ordinarily employed.

By using these new cushions the chafings and sores caused by the contact of the saddle, collar, &c., with the animal are avoided, and the parts of the body to which they are applied maintain a certain degree of freshness and freedom from heat.

To enable those skilled in the art to understand and use my invention, I will now proceed to describe it.

Figures 1, 2, 3, 4, and 5 represent the different forms of cushions which I prefer to employ.

Fig. 1 represents a sheet or plate of vulcanized caoutchouc not more than twenty-five millimeters thick, (a little less than an inch,) pierced in every direction by little holes, through which air circulates, and forming a sponge-like or porous pad or cushion.

Fig. 2 represents another form of a cushion, consisting of little knobs or spheres placed near each other on a sheet of caoutchouc, the total thickness of the cushion thus formed being about three centimeters, (a little over an inch.) Each little knob or sphere is pierced with holes like those in the porous cushion in Fig. 1.

Fig. 3 represents a cushion composed of hollow tubes, which may be formed separately or cemented together, placed one by the side of the other. The interior diameter of these tubes should be about eighteen millimeters, or five-sevenths of an inch. When these tubes are molded or formed separately they can be fastened to a band of fustian, *a*, Fig. 6; but when they are formed in one piece they may be applied to a band of felt, Fig. 7.

In Fig. 4 the cushion is formed of dice made of caoutchouc pierced by a certain number of

holes. In the drawings, these holes are five in number, and the thickness of the dice is the same as that of the hollow tubes—*i. e.*, eighteen millimeters.

Lastly, Fig. 5 represents a cushion formed of double tubes, made in one piece or separately, and then attached to a band of leather or caoutchouc. The cushions made of single or double tubes should be used preferably with riding and pack saddles, while the cushions represented in Fig. 1, 2, and 3 may be used in connection with collars and breast-pieces. This however is at the option of the manufacturer, as any form of the cushion can be used with either saddles or harness of any kind.

Fig. 8 represents a Hungarian military saddle with tubular cushions. Fig. 9 shows the manner in which the said cushions are attached to a pack-saddle for mules.

Fig. 10 represents a saddle provided with the cushion *a*, constructed as above described, and the cushion *b*, to which is attached the distributing-tube *c*. This tube is perpendicular to the tubes of which the cushion is composed, and communicates with each one of them. Its ends, which are open, extend beyond and outside of each end of the saddle, in order that the air can circulate freely.

An exterior view of the saddle is given in Fig. 11.

Figs. 12, 13, 14, and 15 represent cushions for draft-harness. These cushions can be employed to great advantage either with collars, Fig. 13, or as false collars, Fig. 15, with breast-straps, Fig. 12, or as false breast-straps, Fig. 14.

When cushions thus formed and constructed are used with the ordinary saddle they render unnecessary the use of the blankets and saddle-cloths which are commonly employed. The elastic cushions alone prevent the saddle from chafing and injuring the horse's back, and at the same time keep that portion of the body of the animal with which they are in contact comparatively cool and free from heat, and the same advantages accrue from their use in draft-harness.

These cushions or pads should not be confounded with those which are made in the shape of a sack and filled with compressed air. The latter are made resistant by the air which is shut up within them, while the resistant qualities of cushions constructed in accordance with my invention result from the peculiar

form given the material used in their construction, as represented in the drawings, the air which circulates through them serving only to keep them cool, and consequently to prevent the heating of those parts of the body of the animal to which they are applied.

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

1. The employment, in the manufacture of cushions or pads for riding-saddles, pack-saddles, and harness of all kinds, of elastic substances, such as vulcanized gutta-percha or caoutchouc, when of the form and shape substantially as set forth.

2. The formation of said elastic substances into tubes, double tubes, dice, knobs, or spheres, substantially as and for the purposes herein set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

ACHILLE ANGELINI.

Witnesses:

NEVGA FETICE,  
CALAJANNI GUISEPPE.