

R. SPENCER.
SADDLE-CLOTH.

No. 172,058.

Patented Jan. 11, 1876.

FIG. 1.

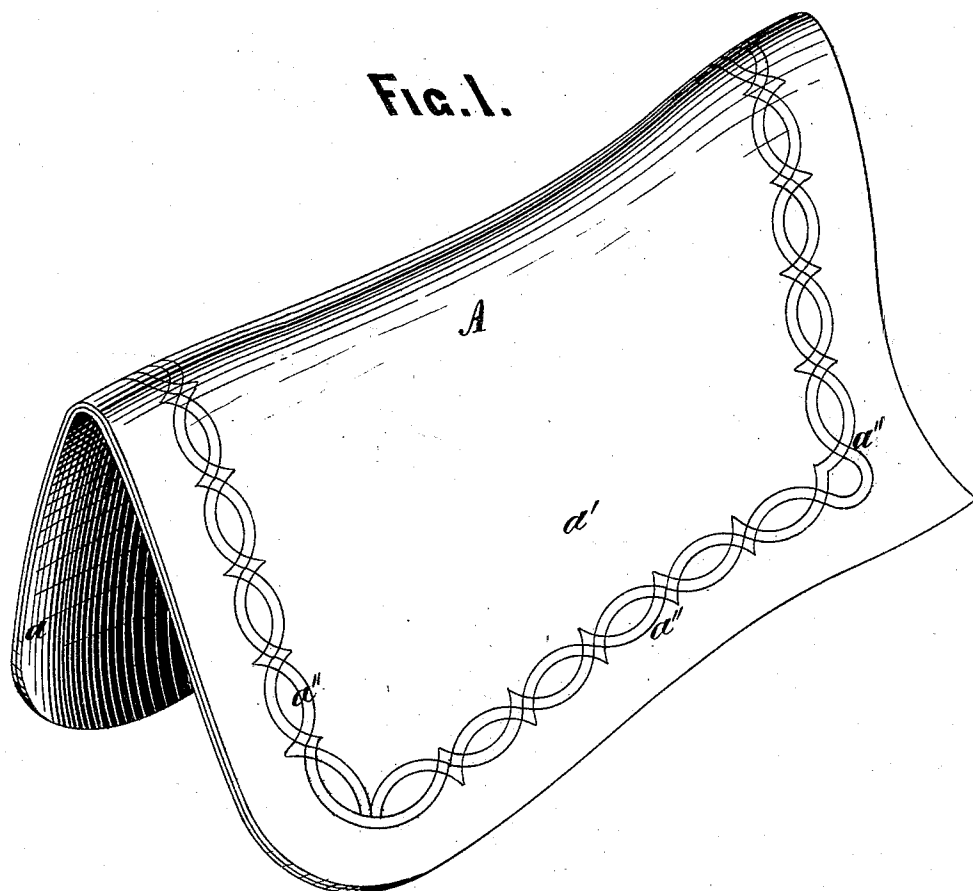
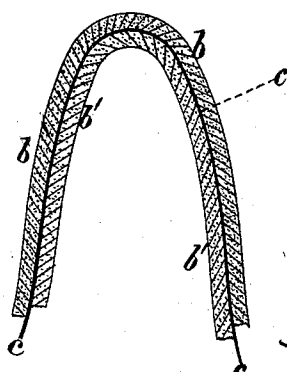


FIG. 2.



Witnesses:

E. N. Dickerson Jr.
J. M. S. S. S. S.

Inventor:

Robt. Spencer.

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FIG. 3.

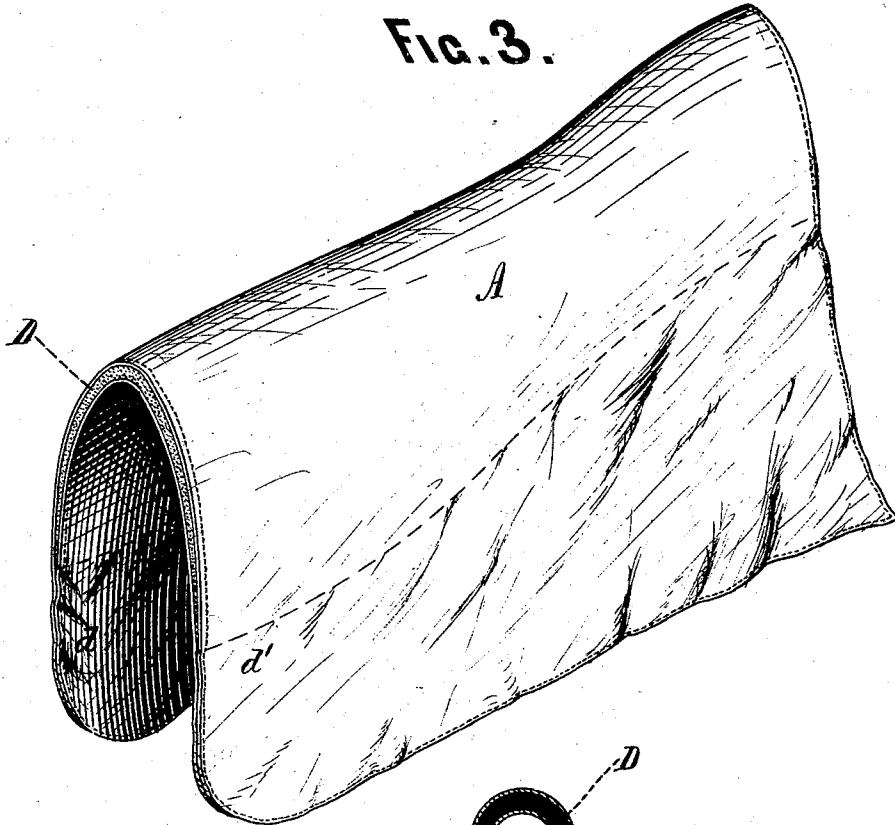
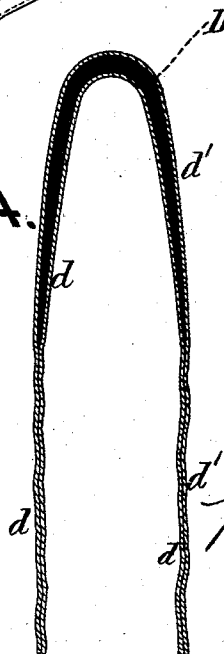


FIG. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

ROBERT SPENCER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SADDLE-CLOTHS.

Specification forming part of Letters Patent No. **172,058**, dated January 11, 1876; application filed November 11, 1875.

To all whom it may concern:

Be it known that I, ROBERT SPENCER, of Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Saddle-Cloths; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to an improvement in saddle-cloths, of which the following is a true and exact description, reference being had to the accompanying drawings.

In order to make a practical efficient saddle-cloth a considerable thickness of material is necessary, and it is often difficult and expensive to get a proper amount of material in one fabric. Heretofore it has been customary to employ felt fabrics for this purpose, but of late years, owing to the increase in body and the cheapness of woven fabrics, it has become desirable to form saddle-cloths of these materials also. It is, of course, impossible to weave a single cloth thick enough to form a saddle-cloth, and it is therefore very desirable so to unite two cloths as practically to make a single cloth of desired thickness.

The only way hitherto known of accomplishing this result has been to sew or quilt together such cloths. This is an expensive and troublesome operation, and unless the stitching passes over almost the entire surface of the cloth, the usual result is that, as soon as the cloth is used on a horse's back, the pressure and friction cause it to stretch and form bags or loose folds, and it is also liable to rip and tear. One of the objects of my invention is to avoid this difficulty. This I accomplish in the following way:

Two cloths of the same size and shape, and together having the requisite thickness, are employed. Some adhesive material or gum is placed between their contiguous surfaces, and by it they are firmly united and practically form one cloth, so that no amount of friction or rubbing can loosen one from the other. The saddle-cloths made in this way need no stitching nor binding around their edges, and, owing to the increased cheapness of the material and the ease of manufacture, they can

be made at much less expense than the previously-known cloths.

It has sometimes been customary to employ a water-proof gum to fasten two cloths together. An objection arises to the use of this water-proof material in the case of saddle-cloths, since it would interfere with the proper escape of the horse's perspiration through the cloth, and I have therefore devised the following method of avoiding this difficulty:

The adhesive material or gum is not directly applied to the surface of the cloth, but an intervening material, known as screen-cloth or canvas, is employed. This material has a large mesh, and is full of perforations or holes. The adhesive material into which this screen-cloth is dipped does not fill these perforations, but is retained upon the threads of the screen-cloth. If this material be placed between the two cloths of the combined saddle-cloth, they will be bound firmly together, but at the same time an escape will be allowed through them for the perspiration of the horse. It is, of course, obvious that more than two thicknesses of cloth may be united together in this way. By inserting a strong firm material between two thicknesses of poorer and weaker material, a great saving in expense is effected. The poorer cloths are re-enforced by the better and stronger middle fabric, and become as effective as cloths much more expensive. If the edge-binding be omitted, a border might be mechanically embossed on the cloth from a plate, either plain or in color. The saddle-cloths thus produced are reversible—that is, either side may be placed uppermost.

In order to secure the proper graduation of the saddle-cloth, which is sometimes desirable, I use two methods: In the first place, I attach a graduated cloth, by means of some adhesive material, to a cloth of even thickness. The graduated cloth need not be co-extensive with the plain cloth, and may only extend as far as the bearing of the saddle. It should, of course, be placed beneath nearest the horse's back. Or, in the second place, I insert between a pair of cloths, properly shaped and cut, a third cloth, having a suitable graduation, which intervening cloth may either ex-

tend to the bottom edge of the other cloths or may be cut off, as in the drawing, at such a point that it serves to form the graduation under the proper or bearing portion of the saddle, but is not continued to the bottom. By this latter means much superfluous weight and material are avoided, and a cheap and durable graduated and reversible saddle-cloth is made. The graduated material inserted between the cloths may be a very low grade of felt, such as common boiler-felt, the thickness of which I have discovered a means of varying at pleasure. The expense of graduated saddle-cloth is greatly reduced by this means, and a better article is made.

The drawings hereto annexed will now be described.

Figure 1 is a general view of my improved double saddle-cloth, showing the embossed edge and the junction between the two cloths.

Fig. 2 is a cross-section of my double saddle-cloth, united by the joining material or screen-cloth. *b* and *b'* are the upper and lower cloths, and *C* is the uniting material or screen-cloth.

Fig. 3 is a general view, and Fig. 4 a cross-section, of my improved graduated saddle-cloth. *d'* and *d* are the upper and lower cloths. *D* is the inserted graduated material. This inserted material might be continued to

the bottom of the cloth, and this graduation might be so arranged as to be thickest at *A*, on the line or bearing under *A*, and thinner at the top, the saddle resting upon this thick portion, and the perspiration passing through the upper thinner portion.

I claim—

1. A compound saddle-cloth, shaped to the horse's back, formed by uniting together two separate cloths, sufficiently thick to form a practical saddle-cloth, by means of an intervening and perforated material, so arranged as to allow the free passage of the perspiration of the horse through the cloth, substantially as described.

2. A compound graduated saddle-cloth, formed by uniting together a graduated and an ungraduated saddle-cloth, substantially as described.

3. A compound graduated saddle-cloth, composed of two cloths of even thickness, and an intervening graduated cloth, so arranged as to make a compound cloth thickest where most thickness is necessary, substantially as described.

ROBT. SPENCER.

Witnesses:

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