(Model.)

H. COMSTOCK.

Trace or Driving Reins.

No. 235,211. Patented Dec. 7, 1880.

Fig. 1.

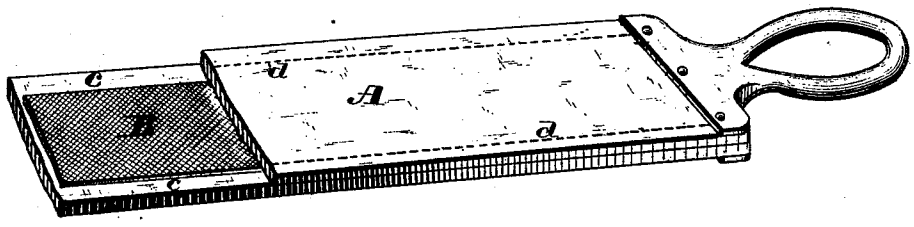
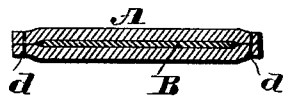


Fig. 2.



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HARRY COMSTOCK, OF FULTON, NEW YORK.

TRACE OR DRIVING-REIN.

SPECIFICATION forming part of Letters Patent No. 235,211, dated December 7, 1880.

Application filed March 2, 1880. (Model.)

To all whom it may concern:

Be it known that I, HARRY COMSTOCK, of Fulton, in the county of Oswego and State of New York, have invented certain new and useful Improvements in Traces or Driving-Reins, of which the following is a specification.

My invention relates to a trace or driving-rein composed of a strip of canvas or other suitable textile material secured between two bands of leather.

Heretofore straps or belts have been made by cementing a strap of some textile material between two straps of leather, the edges of both the leather straps and of the strap of textile material being flush. The chief objection to this construction of compound strap is that the textile strap ravels out, and that its edges being exposed, it will absorb moisture and therefore often swell and break the leathers apart.

In another form of strap made previous to my present invention, a strap of textile material has been inclosed by one or two straps of leather, the latter being folded over the edges of the textile strap, so as to protect the same. Where two leather straps have been thus employed, such straps have been folded over the edges of the textile strap and their edges arranged to meet at points directly upon the faces of the body of the strap of textile material. This necessitates several lines of stitches to hold the parts firmly together, since the opposing faces of the leathers do not come in direct contact, so that they can be cemented together, and moreover special machinery adapted for folding the leathers must be employed.

Under my improvement, while the textile strap is entirely concealed, certain portions of the opposing faces of the leathers are brought into direct contact with each other and cemented together, so as to form along the edges of the completed strap a stronger union between the leathers than would be possible if each leather was cemented to the textile strap only. Moreover, I avoid any bending, and consequent liability of breaking the leather at the bends, and also I avoid any tendency of the strap to swell at its edges, which, in instances where the leathers are formed with folds or bends, is likely to occur.

Belting has also been made of two leather belts with an intermediate lining of parallel wires connected together by transverse threads of fabric, the threads being interwoven through the wires. This lining is of a less width than the belt, and all are united by cement; but such belting would not be suitable for a trace or driving-rein, which is necessarily exposed to the weather, since, by the frequent folding or bending of the trace or rein, the wires will break and their ends work out through the leather, to the injury either of the hands of the driver or of the horse. Again, the wires do not admit of the flexibility required in a rein or trace.

My improvement consists in a trace or driving-rein composed of a strip of canvas or similar textile material, arranged and cemented between two straps of leather, both of equal width, and each of a width greater than that of the textile strap, said straps of leather having their sides which are to be exposed of a regular finish, and the margins of each leather strap projecting beyond each edge of the textile strap, and the opposing faces of said projecting portions of the leathers being cemented directly together, substantially as hereinafter shown and described.

In the accompanying drawings, Figure 1 is a view of a portion of a heavy harness-trace made of my improved material, one of the leather straps being cut away to expose the inner textile strap. Fig. 2 is a cross-section of the trace.

The leather straps are indicated by the letter A, and the interior textile strap, preferably made of canvas, by B. I make the leather straps somewhat wider than the canvas strap, and arrange the latter centrally, leaving a margin of leather, as at *c*, at each edge, so that when all the members are connected together these margins will come directly in contact with each other, and the textile strap will be entirely inclosed and invisible, the trace having the appearance of being formed entirely of leather, and the edges of the textile strap being protected from wear.

In cementing the straps together I use white glue having mixed with it a small quantity of powdered quicklime, which renders it insoluble in cold water, so that the trace will not be

damaged by exposure in wet weather. After the parts are cemented together I prefer to form a line of stitches through the margins, as shown at *d*, in order to prevent the edges of the leather straps from being separated by rough usage, the stitching being done before the cement hardens.

What I claim is—

A trace or driving-rein composed of two leather straps inclosing an intermediate strap of textile material, narrower than the leather straps, the whole being cemented together, and the leather straps united at their edges, substantially as shown and described.

In testimony whereof I have hereunto set my hand in the presence of the subscribing witnesses.

HARRY COMSTOCK.

Witnesses:
JAMES TAYLOR,
S. A. EMANUEL.