

(No Model.)

A. G. DAY.

BREAST COLLAR OR STRAP FOR HARNESS.

No. 339,271.

Patented Apr. 6, 1886.

Fig 1.

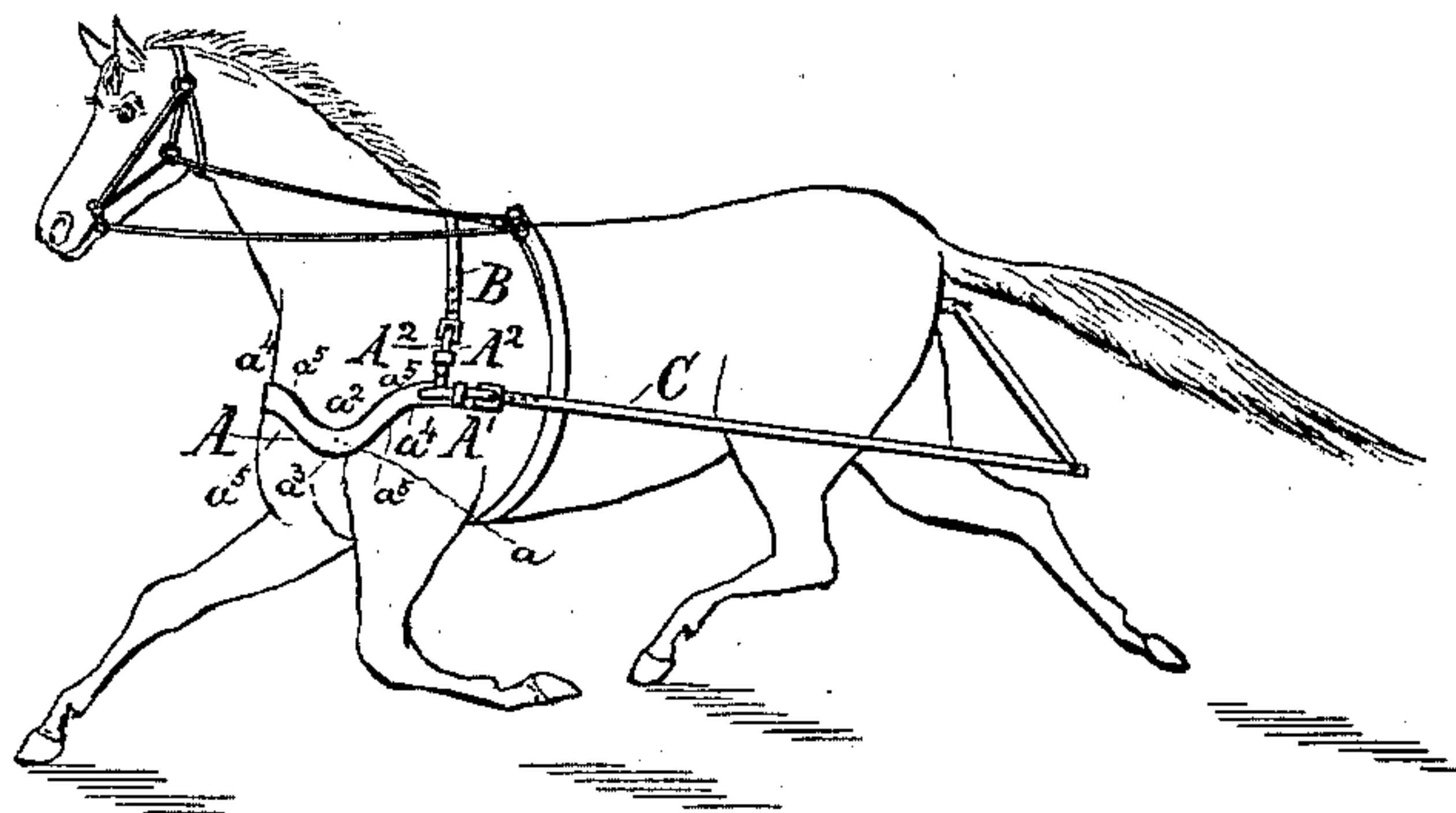


Fig 2.

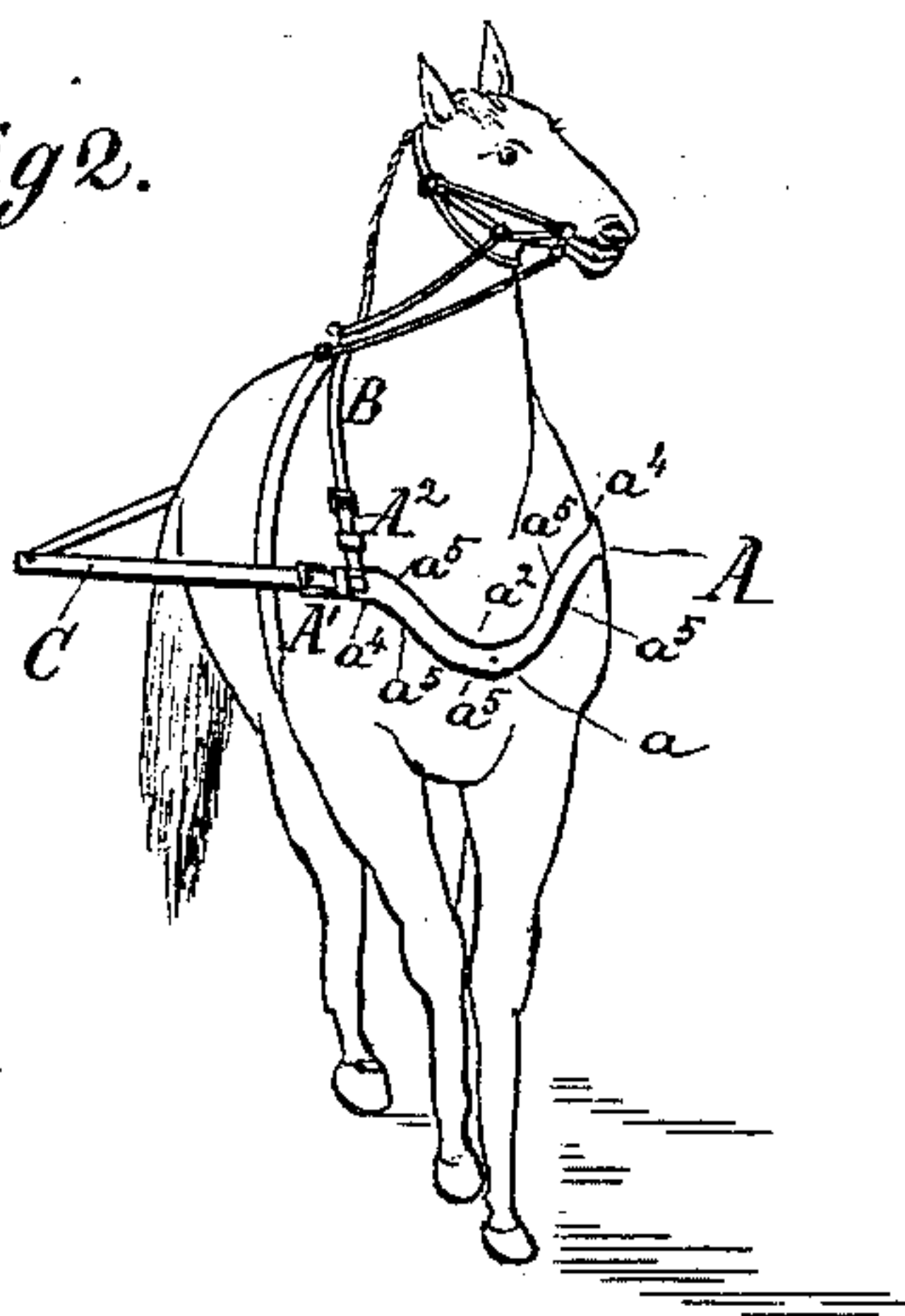


Fig 3.

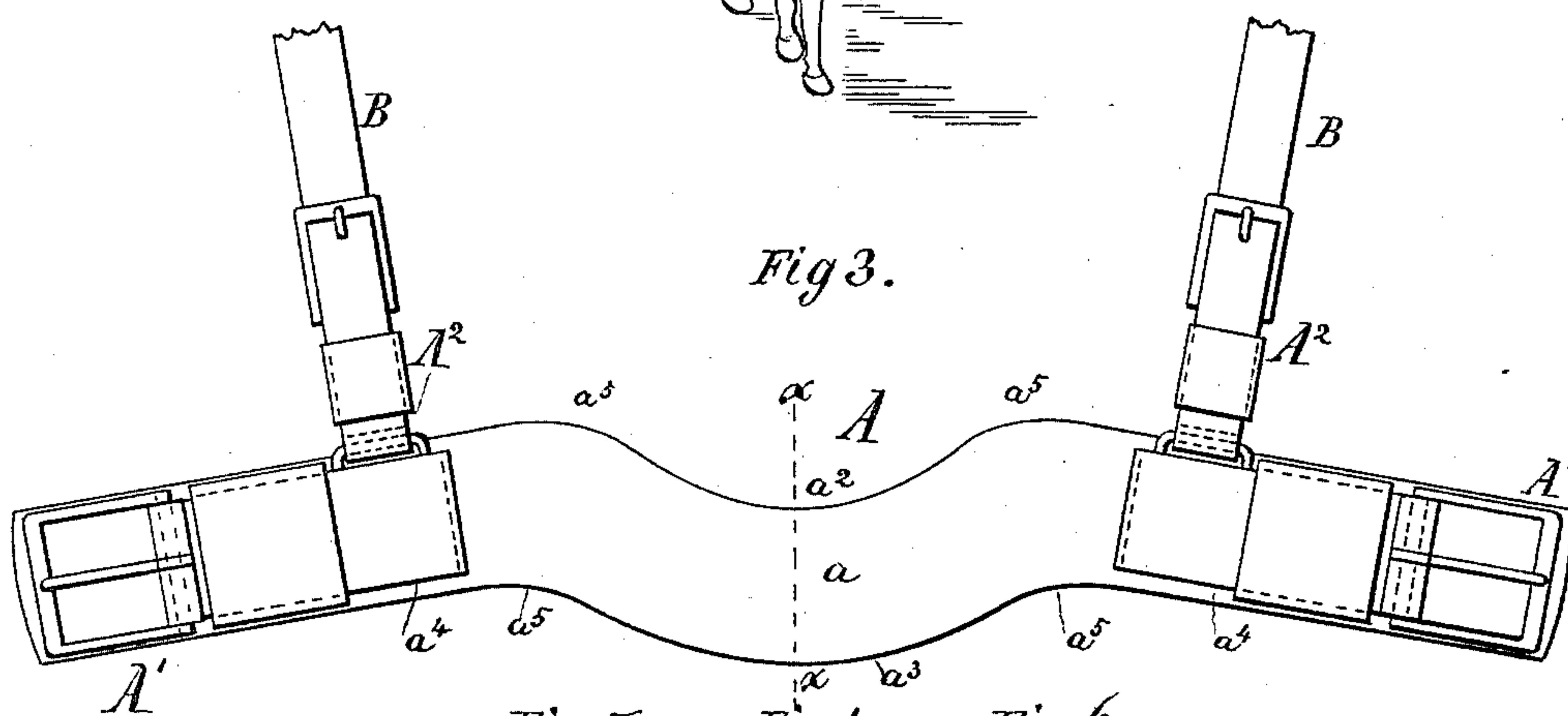


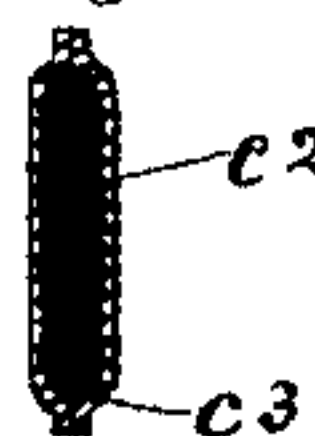
Fig 5.



Fig 4.



Fig 6.



Witnesses
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UNITED STATES PATENT OFFICE.

AARON G. DAY, OF COLEBROOK, NEW HAMPSHIRE, ASSIGNOR OF ONE-HALF
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BREAST COLLAR OR STRAP FOR HARNESS.

SPECIFICATION forming part of Letters Patent No. 339,271, dated April 6, 1886.

Application filed December 15, 1885. Serial No. 185,761. (No model.)

To all whom it may concern:

Be it known that I, AARON G. DAY, a citizen of the United States, residing at Colebrook, in the county of Coos and State of New Hampshire, have invented certain new and useful Improvements in Breast Collars or Straps for Horses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of an improved article of manufacture, which comprises a breast collar or strap, having the usual buckles and suspending neck-strap, and is made of a stout piece of flexible harness-leather of uniform width throughout its length, and formed with a concavo-convex middle portion adapted to the shape of and fitting the breast and shoulders of a horse when it is bent and applied thereto, and having its end portions, which extend from said curved portion, inclined downwardly with respect to a horizontal line, so that they, with the concavo-convex portion, form very obtuse angles, the corners of which are curved, and also that they shall stand on the same inclined straight lines with the traces when the breast-strap is applied upon a horse and buckled or otherwise suitably connected to the traces.

In the accompanying drawings, Figures 1 and 2 are illustrations of my improved harness-leather flexible breast-strap as applied to a harnessed horse. Fig. 3 is a front view of the strap, showing its form before being bent or when cut from a side or skin of harness-leather. Fig. 4 is a vertical cross-section of the strap in the line $x x$ of Fig. 3; and Figs. 5 and 6 are similar sections of two different ordinary breast-straps, one comprising a stiffening-plate of metal and a covering of thin leather, and the other a stiffening-piece of "patent-leather" and a covering of thin leather, these constructions being heretofore devised by others as substitutes for the well-known and commonly-used straight-edged harness-leather flexible breast-strap.

A in the drawings represents my improved breast-strap, made of a single thickness of flexible harness-leather—say one-quarter to one-eighth of an inch thick, or of a greater or less thickness, according to the strain it may

be required to bear—and provided with the usual trace-connecting buckles, A' , and neck-strap buckles A'' , and neck suspending-strap B, as shown.

In cutting the improved straps out of a side of harness-leather, a pattern corresponding to the shape desired—say about as shown in Fig. 3—is prepared, of a size suitable for breast-straps for use on horses of a common size, and after the first strap is cut by aid of this pattern, and the slight waste of material at the first end of the hide experienced, no further waste will occur, except at the other end of the hide where the last strap is cut. The middle or breast-bearing portion, a , of the strap is concave on its upper edge and convex on its lower edge, a'' , and the ends or shoulder-bearing portions a' are straight-edged, but inclined downward from a horizontal line, as shown, forming with the portion a very obtuse angles, the corners a''' of which are, respectively, convex and concave, as shown.

The several patterns of several different sets for different-sized horses will vary in size and in curvature of portion a and inclination of portions a' , accordingly as circumstances require. One pattern will answer for a large number of horses of a common size; but, if desired, the breast-straps may be cut to suit particular horses.

In Fig. 5, c represents a stiffener of metal, and c' a covering of thin leather; and in Fig. 6, c'' represents a stiffener of patent-leather, and c''' a covering of thin leather, both of these constructions being old.

In some uses of my breast-strap the traces may be formed with or united directly to it, in which construction the buckles A' would be dispensed with.

The invention herein described is the result of a discovery made by me after much experience in the art to which it relates. By trial I found that a stiffener such as is used in the respective breast-straps shown in Figs. 5 and 6 could be dispensed with, because a stout harness-leather flexible breast-strap will never change its form while in use, provided that when it is manufactured it is cut to a shape which adapts it to fit the breast and shoulders of the horse and to unite with the traces on straight inclined lines, and this is

due to the fact that the breast-strap, when suspended by the usual neck-strap, just fits the breast, bears high upon the horse's shoulders, and is drawn upon in a manner which causes those portions of the inner surface of the strap which are in contact with the breast and shoulders of the horse to maintain an unchanging relation thereto, the main pull coming upon the shoulder portions of the strap, and this action upon the strap not tending to disturb the bearing relation of the breast-portion.

Heretofore a breast-strap has been made of a piece of stout harness-leather having a uniform width and straight edges, and while it answers a better purpose than any other known strap, and is generally adopted in preference to the straps shown in Figs. 5 and 6 on account of its cheapness, flexibility, and safety against chafing, galling, and blistering the horse, it is not just what is wanted and absolutely needed, from the fact that it does not come up as high upon the horse's shoulders nor stand as low down away from the windpipe, as it should; nor fit the breast and shoulders of the horse perfectly, and owing to these defects the horse does not have the entire benefit of his strength without the legs or muscles of the shoulders being bound or hampered in their action, and there is liability of the middle part of the straight-edged strap being raised against the horse's windpipe in such a way as to choke, weaken, annoy, and "wind" the horse; and besides these objections the upper straight edge of the strap in time yields to the force exerted upon it and bends or curls over, so as to become impaired and annoying to the horse, as well as unsightly.

The attempts made to obviate the above-mentioned objections to the straight-edged strap—viz., by cutting a stiffener of either metal or comparatively rigid patent-leather into a form which would fit the horse's breast and shoulders, and inclosing this stiffener by a covering of thin leather, as illustrated in Figs. 5 and 6—were of great use, in that by these constructions the draft came high upon the shoulders, where the horse had the benefit of his full strength, without the legs or muscles of the shoulders being bound or hampered in their action, and at the same time the central portion of the breast-strap was

not raised against the windpipe in such a way as to choke the horse or cause other annoyances; but such stiffened or covered straps have the disadvantage of being much more expensive than the ordinary straight-edged flexible breast-strap of harness-leather, and when the one with metal stiffener is used of cutting and wearing out the leather covering very soon or breaking or bending and getting out of shape, and thus by not conforming to the shape of the horse's shoulders, producing galls and blisters or sores in cases of continuous hard work; and a like disadvantage, but to a less degree, is experienced from the one with a piece of rigid patent-leather covered by thin leather, from the fact that it is so inflexible as to make the horse uncomfortable, and the thin leather covering soon becomes crinkled or roughened, or often so worn as to expose the edge of the stiffener, and thereby subject the horse to the annoyance of chafing or galling.

In the manufacture of my improved breast collar or straps it is contemplated, when desirable, to ornament the same by stitching raised flexible leather strips on the fronts thereof, as is commonly practiced; or the straps may be ornamented by embossing, as may be found desirable; but I find that the construction represented answers the best for the purpose set forth.

What I claim is—

The within-described improved article of manufacture, consisting of a breast collar or strap for horses having the usual buckles and suspending neck-strap, and made of a stout piece of flexible harness-leather of a single thickness of about a uniform width throughout its length, and formed with a concavo-convex middle portion adapted to the shape and fitting the breast and shoulders of a horse, and having its end portions inclined downwardly with respect to a horizontal line, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

AARON G. DAY.

Witnesses:

JAMES I. PARSONS,
WILLIAM D. TRESK.