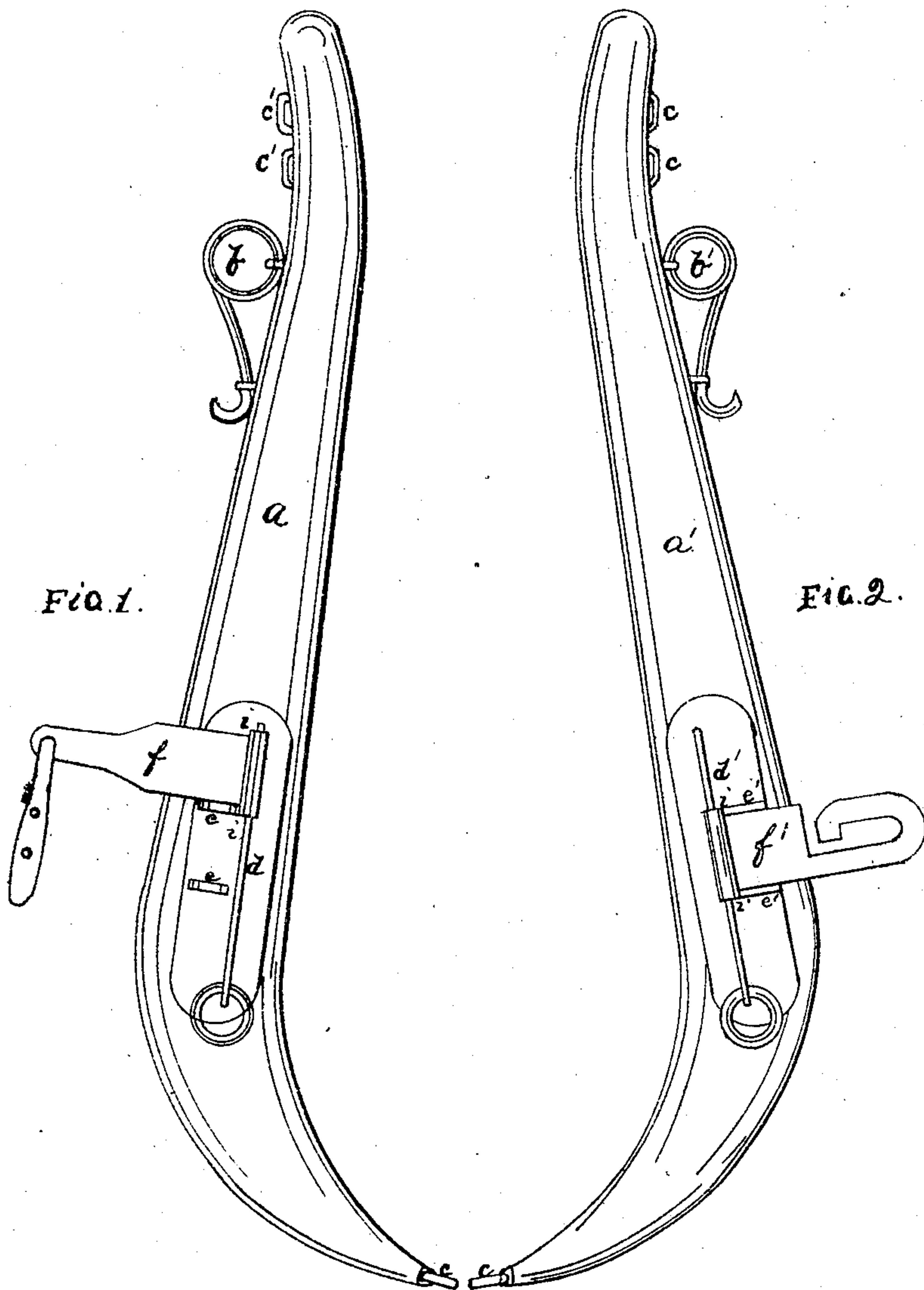


B. Crawford.

Hame.

N^o 75250

Patented Mar. 10, 1868.



Witnesses.

W. D. Lewis

R. D. Smith. Atty.

Inventor.

Benjamin Crawford

by Bakewell & Co. Atty.
his attorneys.

United States Patent Office.

BENJAMIN CRAWFORD, OF ALLEGHENY CITY, PENNSYLVANIA.

Letters Patent No. 75,250, dated March 10, 1868.

IMPROVEMENT IN HAMES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, BENJAMIN CRAWFORD, of Allegheny City, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Hames; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front view of one of a pair of hames, showing one form of device for attaching a tug to a hames, with my improvement in one of its positions of adjustment, and

Figure 2 is a similar view of the other of a pair of hames, showing another form of tug-fastening, also with my improvement, and in a different position of adjustment.

Like letters of reference indicate like parts.

The tug-hooks or tug-eyes, or other device in common use for connecting the tug-strap or trace-chain of a harness to the hames, is usually attached to the hames, so as to be incapable of being adjusted at higher or lower points on the hames; consequently, when, as is often the case, the same hames have to be used on horses of different size or structure of shoulder, the draught or pressure must necessarily sometimes come on the wrong part of the shoulder, so that the full strength of the horse cannot always be judiciously or advantageously applied, and not unfrequently the shoulder itself in this way receives serious and permanent injury.

To obviate these as well as other evils of a like character, I have devised an improvement in hames, the nature of which consists in the construction of an adjustable fastening, by which to connect a harness-tug or trace-chain to its hames.

To enable others skilled in the art to make and use my invention, I will proceed to describe its mode of construction and operation.

a and a' represent a pair of hames of the ordinary construction, and provided with the usual line-rings $b b'$ and loops c and staples c' , for the hames-straps commonly used. $d d'$ are staples, of any desirable length, securely fastened, by riveting or otherwise, each to its hames a or a' , and extending lengthways of the hames. Back of each of these staples $d d'$ I fix one, two, or more projecting supports, $e e'$, which act both as locks and supports to the hinge-shaped fastenings f or f' . These I make so as to be connected with the tug in any ordinary way, and so as to be attached each to its hames a or a' , by the staple d or d' passing through an eye in its front or inner end. This eye I make somewhat longer than the distance between two of the projecting supports e or e' , and of course longer than the breadth of the fastenings f or f' , so that the ends of such eye shall form shoulders $i i'$ to rest against the supports e or e' . Thus the strain of the draught is transferred in whole or in part from the staples $d d'$ to the supports $e e'$, which transfer is especially necessary when such strain would otherwise come at or near the middle of the staples $d d'$. Thus the pins or supports $e e'$ act as supporters to the hinge-shaped fastenings $f f'$.

The distance between the pins or supports $e e$ or $e' e'$ is usually equal the breadth of the hinged fastenings $f f'$, though not necessarily so, as such fastenings may be made narrower. The supports $e e'$ of course project out from the hames sufficiently to furnish the necessary support to the shoulders $i i'$, as above described, and also to lock the fastenings $f f'$ from sliding up or down, when placed between the supports $e e'$, or above or below the highest or lowest of them.

The mode of adjustment is obvious. If it be desired to change the point where the draught or pressure of the load comes against the horse's shoulder, the fastenings f or f' are thrown forward, so as to clear the supports $e e'$, and then slid on their staples $d d'$, up or down, as may be desirable, the required distance, and then placed or allowed to fall back between two other supports e or e' , or below the lowest or above the highest, as the case may be. Generally, three places of adjustment, as shown in the drawings, for each hames, will be found sufficient, though I do not wish to confine myself to any particular number.

The only method of adjustment now in general use is to raise or lower the pair of hames on their collar by lengthening the lower and shortening the upper hames-straps, or *vice versa*, either of which can be done only by sacrificing the fit of the hames to the horse's neck and shoulder, and consequently with great liability of injury to the horse.

I claim, as one advantage of my invention, that the hames may be fitted to the collar so that the latter shall rest naturally and easily in its place, and that then the line of pressure or draught may be so adjusted to the size and shape of the horse's shoulder that the strength of the horse shall be most advantageously applied, and with the least possible liability to injury. Thus I adapt the same pair of hames for use on horses of different size and shape of shoulder.

My invention is likewise of convenience and benefit, even with the same horse, when the line of draught is changed, as in changing from a plough or mowing-machine to a highly-gear'd wagon. It is equally valuable when a horse's shoulder becomes chafed or galled or bruised in any particular spot by the collar. The injured part may at once be partially relieved by raising or lowering the fastenings *f f'* in the manner described. These fastenings *f f'* may be either broad or narrow, at pleasure, provided they have the necessary strength.

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

1. Making fastenings, for connecting harness-tugs or traces to hames, adjustable by an eye through the inner or forward end of each, such eye to be operated on a staple, *d* or *d'*, in connection with proper locks or supports *e e'*, the same being attached to the hames or hames-plate, for holding such fastenings at the proper point of adjustment, substantially as and for the purposes described.

2. The shoulders *i i'* constructed on the fastenings *f f'*, in combination with the supports *e e'*, for the purpose of relieving the strain which would otherwise come on the staples *d d'*, substantially in the manner above described.

In testimony whereof, I, the said BENJAMIN CRAWFORD, have hereunto set my hand, in presence of—

BENJ. CRAWFORD.

Witnesses:

A. S. NICHOLSON,

GEO. H. CHRISTY.