(No Model.)

E. CLARK.

HARNESS.

No. 421,123. Patented Feb. 11, 1890.

Fig: 1.

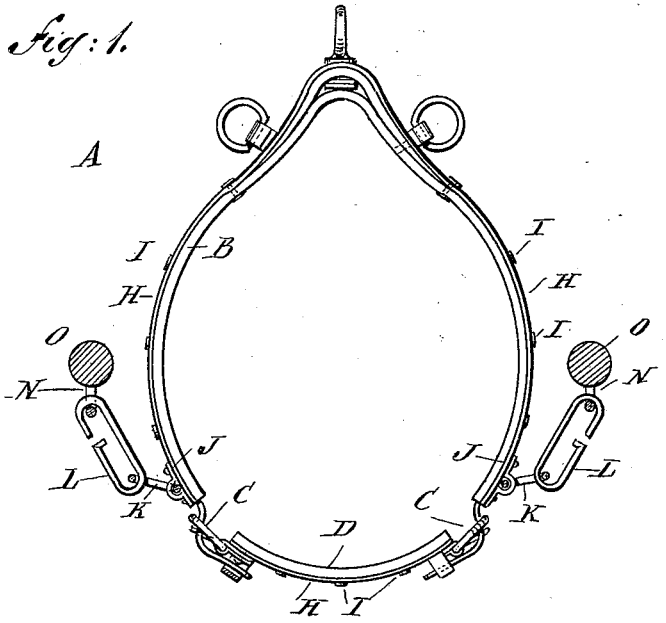


Fig: 3.

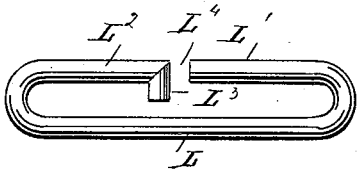
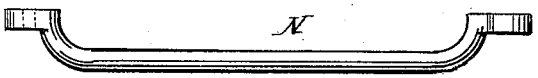


Fig: 5.



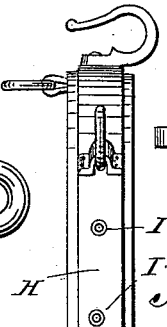


Fig: 2.

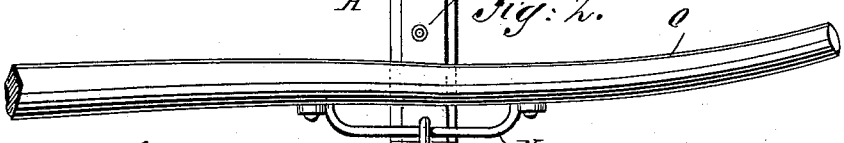


Fig: 4.

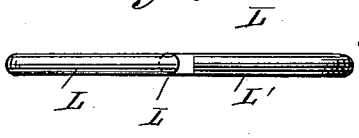
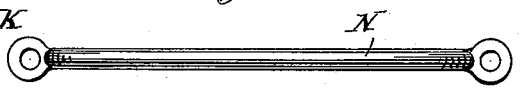


Fig: 6



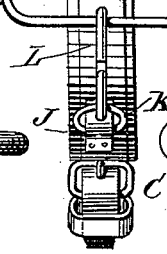
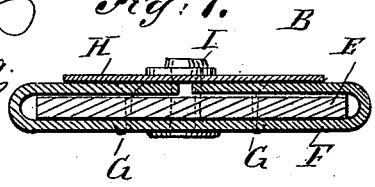


Fig: 7.



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UNITED STATES PATENT OFFICE.

EDWARD CLARK, OF NEW YORK, N. Y.

HARNESS.

SPECIFICATION forming part of Letters Patent No. 421,123, dated February 11, 1890.

Application filed June 14, 1889. Serial No. 314,237. (No model.)

To all whom it may concern:

Be it known that I, EDWARD CLARK, of the city, county, and State of New York, have invented a new and Improved Harness, of which the following is a full, clear, and exact description.

The invention relates to harnesses for single horses; and the object of the invention is to provide certain new and useful improvements in harnesses by which the animal is permitted to draw with great ease and without any injury whatever.

The invention consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an end elevation of the improvement with parts in section. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged face view of the link. Fig. 4 is an edge view of the same. Fig. 5 is a side elevation of the longitudinal bar. Fig. 6 is an inverted plan view of the same, and Fig. 7 is an enlarged cross-section of the saddle-girth.

The improved harness A is provided with a saddle-girth B, passing over the usual saddle on the back of a horse, over the sides of the horse, and connected at its lower ends by buckles and straps C with a band D, similar in construction to the girth B. The latter is made of a broad strip of leather E, inclosed in a strip of leather F, passing around the strip E, so that its ends meet in the middle of the same on one side, as is plainly shown in Fig. 7. The strips E and F are secured to each other by tacks G, or other suitable means, and then a metallic plate H is placed over the joined ends of the strip F, so as to cover up the joint, said plate H being of a width nearly the same as the width of the inner strip E. Rivets or bolts I connect the plate H with the strips E and F, so that all of the parts are securely fastened together, as is plainly shown in Figs. 1, 2, and 7. The girth made in this manner is very strong, at the same time having a very neat appearance.

Near the lower ends of the metal plates H of the girth B are secured the eyes J, in each of which is held a ring K, connected with a link L, held to slide on a longitudinal bar N, fastened to each of the arms O of the shafts. The link L is preferably of the shape shown in Figs. 3 and 4, in which the ends L′ and L^2 extend to within a short distance of each other, and from the end L^2 extends inward a short projection L^3, as shown. The opening L^4 between the ends L′ and L^2 permits of passing the link L into the ring K and onto the longitudinal bar N. The ring K passes through the space at the end of the lug L^3, and when the device is applied, as shown in Fig. 1, the lug L^3 prevents the ring K from becoming detached from the link L.

When the girth B is held on the horse, the links L hang loosely from the shafts, the band D being opened at one end by unbuckling the respective buckle C. The animal is then put between the arms O of the shafts, the band D is connected to the girth B by the respective buckle C, and then the links L are hooked onto the longitudinally-extending bars N. The shafts are held in position by a suitable device, preferably such as shown and described in the United States Letters Patent No. 401,412, granted to me April 16, 1889. The animal carrying the girth B does not support the arms O of the shafts, and is free to draw forward or back up with its full strength. The arms O of the shafts are prevented from passing too far upward by being connected with the girth B by the means previously described.

The connections between the arms of the shafts and the girths permit of moving the horse so far rearward in the shafts as to easily fasten the traces to the singletree on account of the links L sliding on the transverse bars N. The latter is of such a length as to permit the horse to freely back up before the links L reach the rear ends of the bars N, and also when the horse pulls the said links L do not slide to the front ends of the bars N. Thus it will be seen that the animal is permitted to draw with its full strength without being hampered by the shafts, as is the case in harnesses of the same class now in use. It will further be seen that as the girth B has its ends connected with the band D no belly-strap is necessary.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a saddle-girth, of links having openings between their ends and pivotally connected at their lower ends to the girth below the line of the thills to adapt them to engage and slide freely on longitudinal bars on the under side of the thills, substantially as described.

2. The combination, with a saddle-girth having a band connecting its lower ends, of rings on said lower ends below the line of the thills, and links having openings between their ends and suspended from said rings, substantially as set forth.

3. The combination, with the saddle-girth having rings at its lower ends below the thill-line, of links suspended from said rings and provided with side openings L^4 and inwardly-extending projections L^3, substantially as set forth.

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