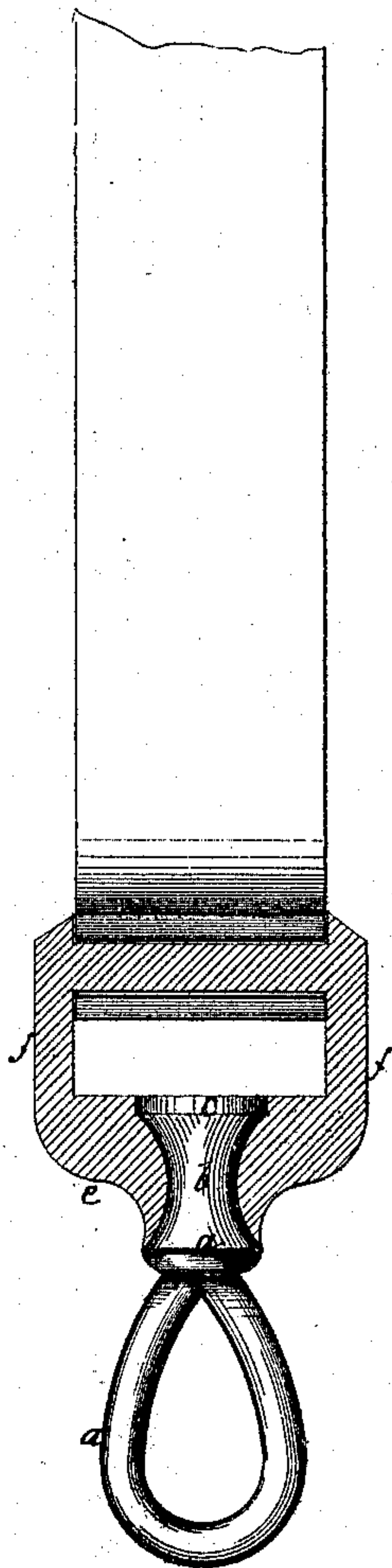


T. J. Magruder,

Harness Cock Eye.

No. 97,662,

Patented Dec. 7, 1869.



Witnesses:

Wm. H. Brooks
E. L. L.

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United States Patent Office.

THOMAS J. MAGRUDER, OF MARION, OHIO.

Letters Patent No. 97,662, dated December 7, 1869.

IMPROVED COCK-EYE FOR HARNESS.

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, THOMAS J. MAGRUDER, of Marion, in the county of Marion, and State of Ohio, have invented a new and improved Swivel Cock-Eye for Harness; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to improvements in the construction of swivel cock-eyes for harness, and consists in constructing the neck of the eye between the two ends, of a regular concave form, and uniting the cross-bar of the frame, to which the tug is connected, by casting it around the said neck, previously arranged in the moulds, so as not to project beyond the inside of the cross-bar, so formed by casting around the said neck, whereby the abrupt shoulders, commonly formed at each end of the straight necks, which are objectionable because of the weakness of the necks at the junction with the said enlargements, and because of the protruding ends inside of the frames, are avoided.

The objection to the protruding ends is that they come into contact with the parts of the tugs looping around the bars to which they are attached, and wear them.

The drawing represents my improved swivel cock-eye, partly in section and partly in elevation.

a is the eye, and *b*, the concave neck thereof, which is shaped in regular concave form, between the enlarged ends.

c d e is the cross-bar of the frame, to which the tug is connected.

These two I unite by placing the eye on the mould, and casting the said cross-bar together with the other part of the frame, or the two end-bars *f* only, as preferred, around the neck, taking care to arrange the

neck *b* in the mould, so that the end *c* will, when the bar *e* is formed, be flush with the inner wall of the said bar.

This construction is believed to be much better than the common arrangement of straight necks projecting from shoulders at *d*, passing through connecting holes, and headed down upon the inside of the bars *e*, for it insures a more perfect fitting of the neck in the holes, and greater strength, the enlargement of the neck each side of the centre, where it is smallest, serving both to strengthen the necks and as shoulders for securing them in the said bars.

It is also better in consequence of the said necks not projecting beyond the inner walls of the bars *e*, as in the common arrangement, whereby the straps are worn by contact with the projecting heads.

These swivel cock-eyes are better adapted for hitching the clips both to the whiffletrees and to the harness, and may be connected to the latter without the use of intervening clips or links, the shape corresponding with the shape of the collars.

The cross-bars *H* may be either formed with the other parts of the frame, by casting, or made separately, and screwed or otherwise secured in the end-pieces *f*.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

As an improved article of manufacture, swivel cock-eyes, having the necks of the eyes, and the cross-bars to which they are connected, constructed, arranged, and connected together substantially as herein specified.

T. J. MAGRUDER.

Witnesses:

M. CROWNWETT,
JOHN MOORE.