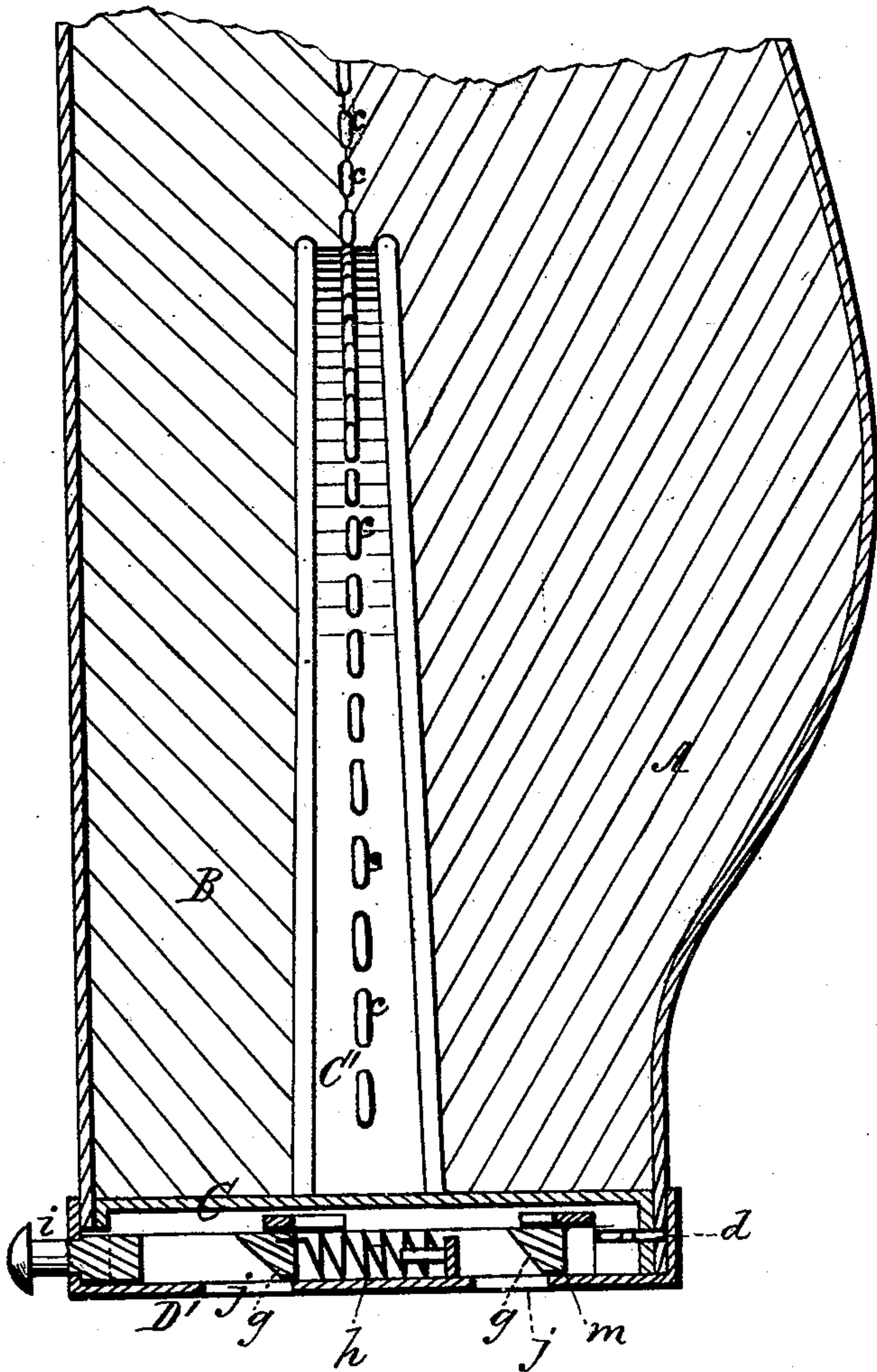


J. B. INGALLS & R. CLARK.
Horse-Collar.

No. 202,348.

Patented April 16, 1878.

Fig. 7



Witnesses.
James Martin Jr.
J. P. Theodore Lang.

Inventor.
Joshua B. Ingalls and
Richard Clark
by
Mason, Fenwick & Lawrence
their Attorneys.

UNITED STATES PATENT OFFICE.

JOSHUA B. INGALLS AND RICHARD CLARK, OF TREMPEALEAU, WIS.

IMPROVEMENT IN HORSE-COLLARS.

Specification forming part of Letters Patent No. **202,348**, dated April 16, 1878; application filed March 7, 1878.

To all whom it may concern:

Be it known that we, JOSHUA B. INGALLS and RICHARD CLARK, of Trempealeau, in the county of Trempealeau and State of Wisconsin, have invented a new and Improved Horse-Collar; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of our improved horse-collar. Fig. 2 is a perspective view of one of the lower ends of the collar and its latches and outside end plate. Fig. 3 is a vertical section of a portion of the collar, the line of section being through the seam which unites the roll and pad of the collar together. Fig. 4 is a face view of the bolt or fastening-plate which admits and confines the latches of the latch-plate. Fig. 5 is a back view of the same. Fig. 6 is a perspective view of the shaping and stiffening plate, to which the lower ends of the pad and roll of the collar are sewed in finishing the ends thereof and uniting the roll and pad together. Fig. 7 is a section of the bolt or fastening-plate and of the pad and roll of the collar, the stiffening-plate being shown in elevation.

The nature of our invention consists in flanged plates perforated all around, and having curved stiffening and shaping bars, which are perforated, attached to their rear sides. By this part of our invention the ends of the roll and pad of the collar can be sewed to a metal shaping and stiffening plate, and the roll and pad can be united together by sewing through the leather, and through the stiffening and shaping bar of said plate, and thus a very firm and perfect collar produced.

Our invention consists, second, in flanged capping-plates, for covering the stitches around the lower ends of the collar, and for supporting the spring latching or fastening contrivance of the collar.

It consists, third, in a straight-moving spring latch or bolt, operated by a thumb-button, and adapted for admitting and retaining one or more beveled and shouldered latches, as will be presently described.

It consists, fourth, in the horse-collar con-

structed with the novel end plates and stiffening and shaping bars, as hereinafter described.

In the accompanying drawings, A is the pad, and B the roll, of the horse-collar. C C' is a flanged stiffening and shaping contrivance, made of metal. The part C of this contrivance is in form of an elongated box, drawn in slightly at the middle, and is perforated all around, as at *a*; and the part C' is curved in a form corresponding to the portion of the collar in which it is fitted, and is perforated, as at *b*. The part C' occupies a position across the seam which unites the roll and pad of the collar together, while the part C is inserted into the lower end of the pad and roll, as shown in Figs. 3 and 7. The leather of the roll and pad are united to the contrivance C C' by sewing through the leather and the metal, as shown at *c* and *d*. The stitches *c* being a part of those which are necessary for uniting the roll to the collar, the double function of confining the stiffening-bar in place and to the collar and of uniting the roll and pad together is performed by the one sewing operation.

D D' are caps for fitting over the flange or body of the parts C C'. These caps are confined to the parts C by means of screws *e e*. On the outer face of the cap D two beveled and shouldered latches, *f f*, are applied; and on the rear side of the cap D' a sliding open bolt, *m*, with two latching portions, *g g*, is provided. This bolt is acted upon by a spiral spring, *h*, so that it shall be self-fastening. On one end of the bolt, and extending through the cap D, is a thumb-piece, *i*, which serves as a means by which the bolt may be moved and the catches released when it is desired to open the collar. Through the face of the cap D' two openings, *j j*, are formed opposite the latch-retaining portions of the bolt *m*, for the entrance of the latches *f f* when the collar is fastened together.

With the self-fastening device described it is only necessary to force the two lower ends of the collar together in order to fasten the collar, and to press the thumb upon the thumb-piece when it is desired to open the collar.

A single latch and a single retaining portion on the bolt might be adopted in lieu of

the two latches and bolt with two retaining portions; but we prefer the plan described.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The flanged end plate C, with its attached bar C', the plate and bar being perforated, so as to be sewed in position in the collar, substantially as and for the purpose described.

2. The capping-plates for covering the sewing around the lower ends of the collar, and serving as supports for a self-fastening contrivance, in combination with the flanged inner plates C, to which the ends of the collar are sewed, substantially as and for the purpose described.

3. In combination with the inner flanged plates C, the cap D', with straight-moving fastening-bolt, having thumb-piece attached, and a cap, D, having a latch or latches, substantially as described.

4. The horse-collar constructed with inner and outer end plates, and shaping and stiffening bars, substantially as described.

Witness our hands, in the matter of our application for a patent on a horse-collar, this 4th day of March, A. D. 1878.

JOSHUA BIGELOW INGALLS.

RICHARD CLARK.

Witnesses:

EDWIN ELKINS,

H. C. SEGUR.