(No Model.) 2 Sheets—Sheet 1.

J. A. BRILL.

HAME FASTENER.

No. 376,811. Patented Jan. 24, 1888.

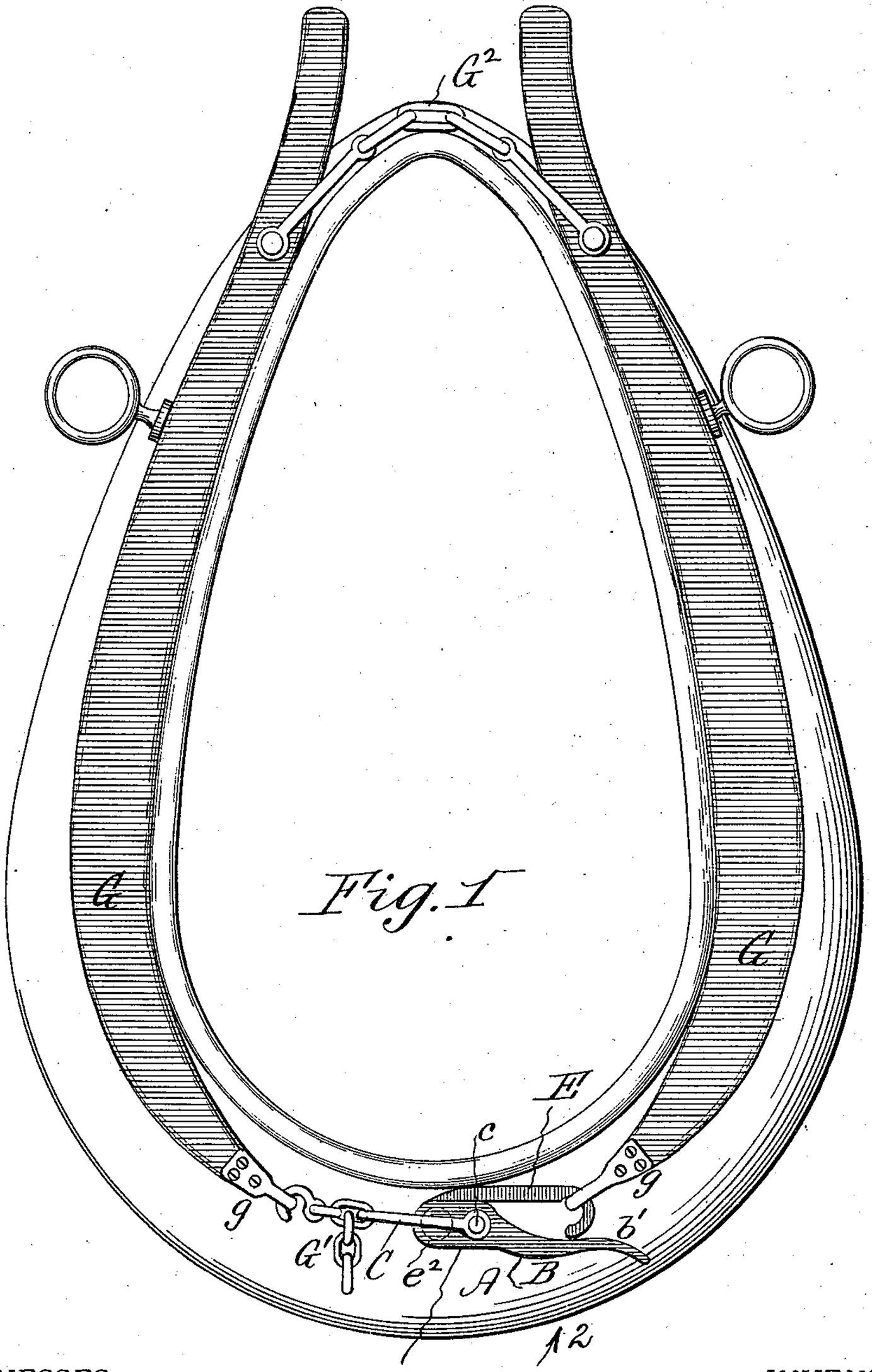

Fig. 1

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(No Model.) 2 Sheets—Sheet 2.

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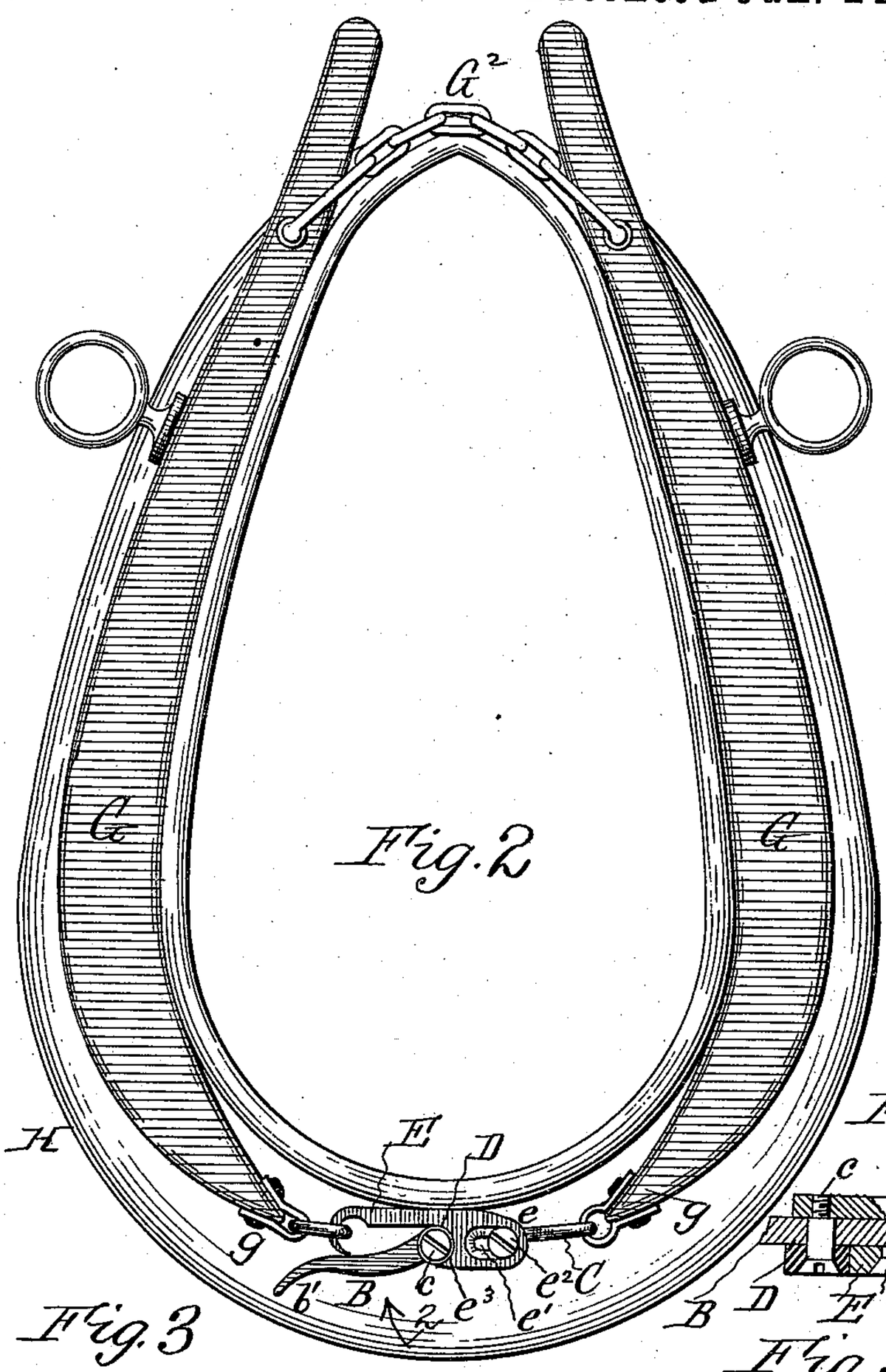


Fig. 2

Fig. 6

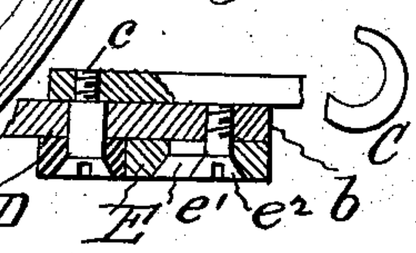


Fig. 3

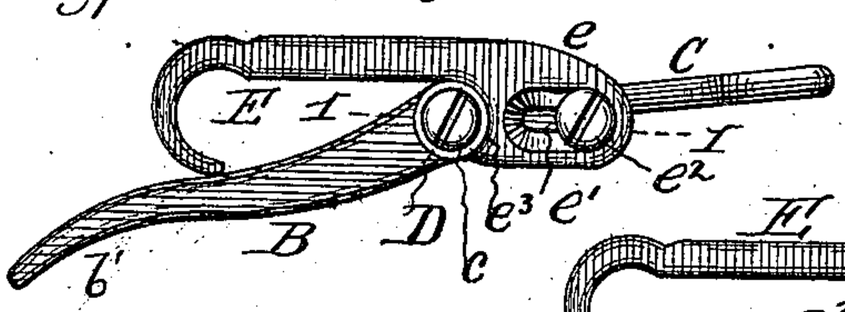
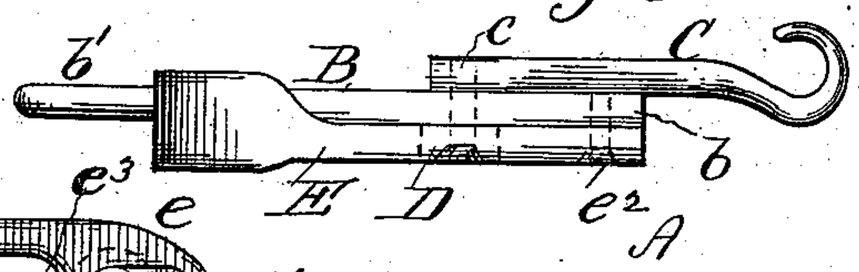


Fig. 5



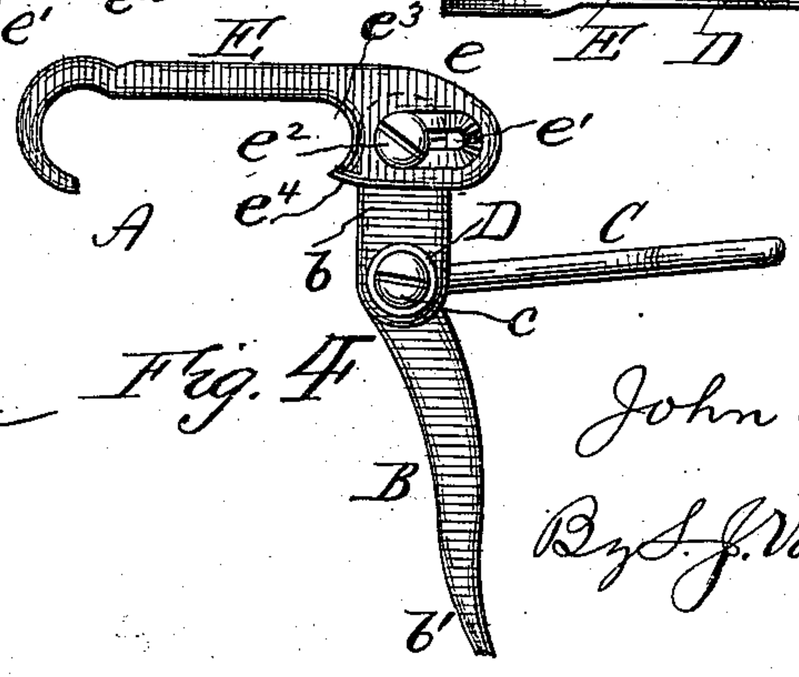


Fig. 4

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UNITED STATES PATENT OFFICE.

JOHN A. BRILL, OF PHILADELPHIA, PENNSYLVANIA.

HAME-FASTENER.

SPECIFICATION forming part of Letters Patent No. 376,811, dated January 24, 1888.

Application filed November 18, 1887. Serial No. 255,479. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. BRILL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Hame-Fasteners, of which the following is a specification.

My invention has relation to hame-fasteners of that form wherein the parts are constructed and arranged for easy and quick manipulation, in order that the hames may be correspondingly coupled to and uncoupled from a collar; and it has for its object simplicity of construction of parts to secure a simple, durable, and efficient fastener, which is easily and quickly manipulated to effect coupling and uncoupling of the hames.

My invention accordingly consists of the combinations, constructions, and arrangements of parts, as hereinafter described and claimed.

Reference being had to the accompanying drawings, Figure 1 represents a face view of a collar and the hames, showing the usual chain-connection with a fastener embodying my improvements; Fig. 2, a like view showing fastener reversed and connected directly to the ends of the hames; Fig. 3, an elevation showing the fastener detached and its parts in their normal position for coupling; Fig. 4, a like view showing its parts moved to a position for uncoupling; Fig. 5, an edge or side elevation of Fig. 3, looking in the direction of arrow 1; and Fig. 6, a partial section on the line 1 1, Fig. 3.

A represents the fastener, composed of a lever, B, near one end, *b*, of which and upon one of its sides is pivoted a hook, C. The pivot-screw *c* for hook C, upon the opposite side of lever B, forms a journal for an anti-friction roller, D, to one side of which, on the end *b* of lever B, is pivoted another hook, E, which has an opposite direction to that of hook C, as shown, and in its end *e* is an elongated slot, *e'*, through which its pivot stud or pin e^2 passes, and adjacent to the inner end of said slot is a curved recess, e^3, for the reception of a fixed hub or the anti-friction roller D, when the parts of the fastener are moved into their normal locking or coupling position, as indicated in Figs. 1, 2, and 3. The pivots e^2 and *c* are then in line with each other, and the outer end, *b'*, of lever B contacts or impinges against hook E. The slot *e'* in hook E admits of a longitudinal movement of the hook E and of lever B and hook C in opposite directions to lock the parts of the fastener together for coupling the hames G G, as shown in Figs. 1 and 2, and this movement, when completed, brings the anti-friction roller D to the recess e^3 on hook E to form a fulcrum for lever B when its end *b'* is depressed to effect a release of said parts for uncoupling the hames.

The operation is obvious. The hooks E and C are secured to or engaged with the lower ends, *g g*, of the hames G G, as shown in Fig. 2, or hook C is secured to the usual chain, G', (see Fig. 1,) the strap or chain G^2 at the upper ends of the hames being duly adjusted for said fastener, as is usual. A movement of the end *b'* of lever B in the direction of arrow 2 draws the hooks E and C and the lower end of the hames together, and the anti-friction roller D moves into the recess e^3 when the end *b'* of lever B impinges against the outer end of hook E, as shown in Figs. 1 and 2. The resultant reverse or opposing strains on the hames hold the parts of the fastener firmly locked in the positions to which they were moved, as above described, to secure or couple the hames to the collar H.

To release the fastener, the handle or end *b* of lever B is depressed, and as the recess e^3 on hook E is a fulcrum for the anti-friction roller on lever B, the hook C, as the roller passes off of said recess, is first drawn toward hook E, the slot in the latter permitting of said movement, and, after the roller is off of the recess, is then moved in an opposite direction to spread said hooks apart, as indicated in Fig. 3, to correspondingly spread or open the lower ends of the hames to admit of uncoupling or removing them from the collar. To admit of the roller D passing readily to and off of the recess e^3, the lower side of the end *e* of hook E is curved, as shown at e^4.

It will be noted from the foregoing that the hooks E and C have separate pivots, that they are pivoted to opposite sides of the same end of lever B, and that one hook and the lever and the other hook are adapted to move in opposite longitudinal directions, so that a single movement of lever B in one direction draws the

hooks or like parts of the fastener together for coupling the hames to the collar, and a corresponding movement in an opposite direction first draws said parts together and then spreads or moves them in a reverse direction to release the parts of the fastener for admitting of uncoupling or removing the hames from the collar.

What I claim is—

1. A hame-fastener composed of a lever, B, having separately pivoted thereto at one end and upon opposite sides of the same oppositely-directed hooks C and E, the latter having a curved recess, e^3, and an elongated slot, e', substantially as set forth.

2. The combination, in a hame-fastener, of lever B, the hook C, pivoted upon one side of lever B, anti-friction roller journaled on the pivot-stud for hook C on the opposite side of lever B, and a hook, E, having recess e^3 and an elongated slot, e', for a separate pivot, e^2, securing said hook E to lever B to admit of them longitudinally moving in opposite directions, substantially as set forth.

3. The combination, in the hame-fastener herein described, of a lever, oppositely-directed hooks having separate pivotal connections with one end of said lever on opposite sides thereof, one of said hooks and the lever and the other hook being adapted to move longitudinally in opposite directions, and a stud on said lever engaging with a recess on one of said hooks, substantially as set forth.

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

JOHN A. BRILL.

Witnesses:
R. S. REED,
S. W. BROADBENT.