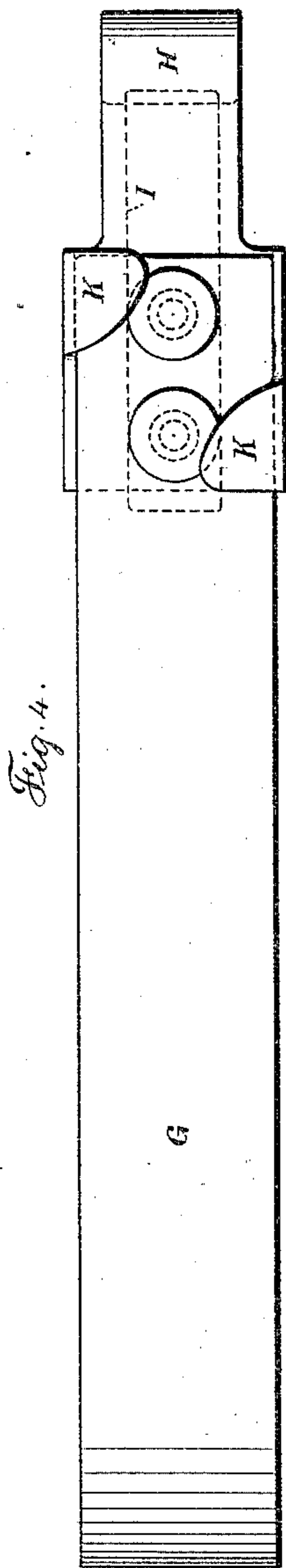


(No Model.)

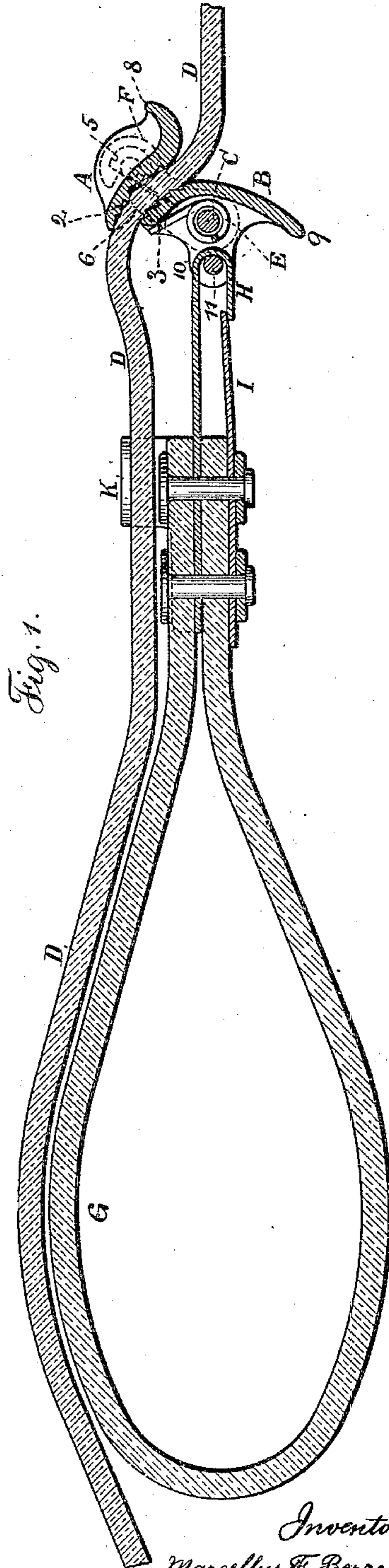
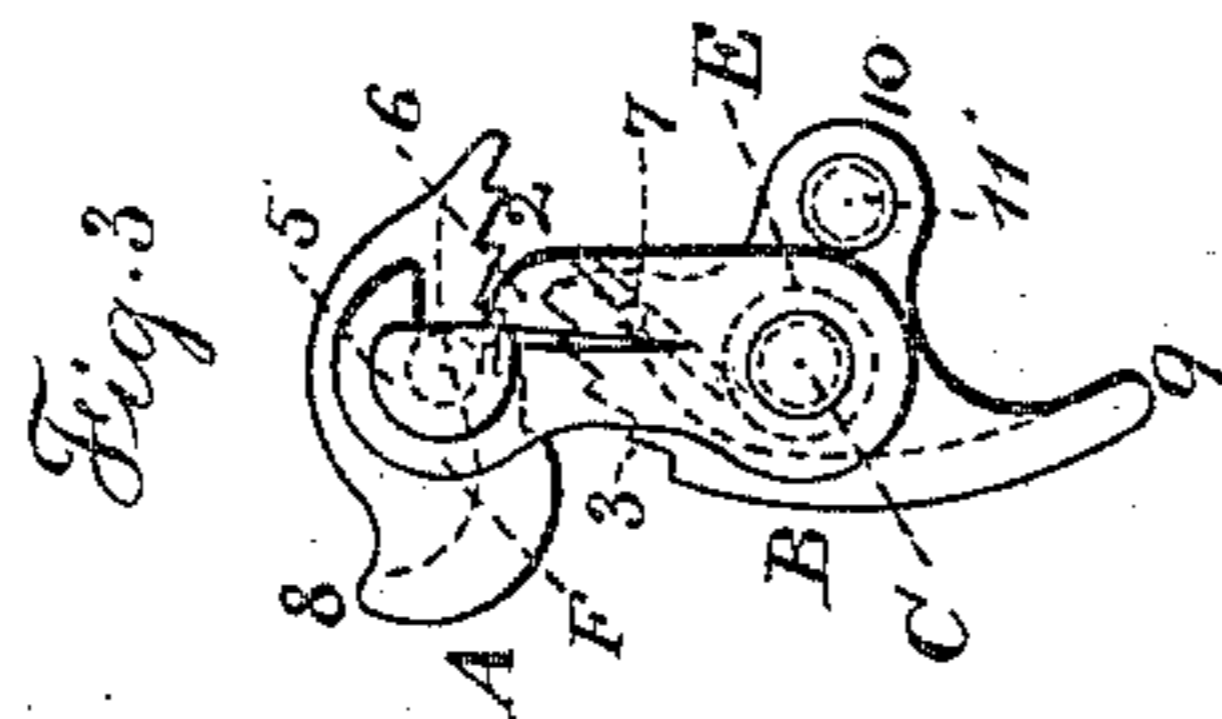
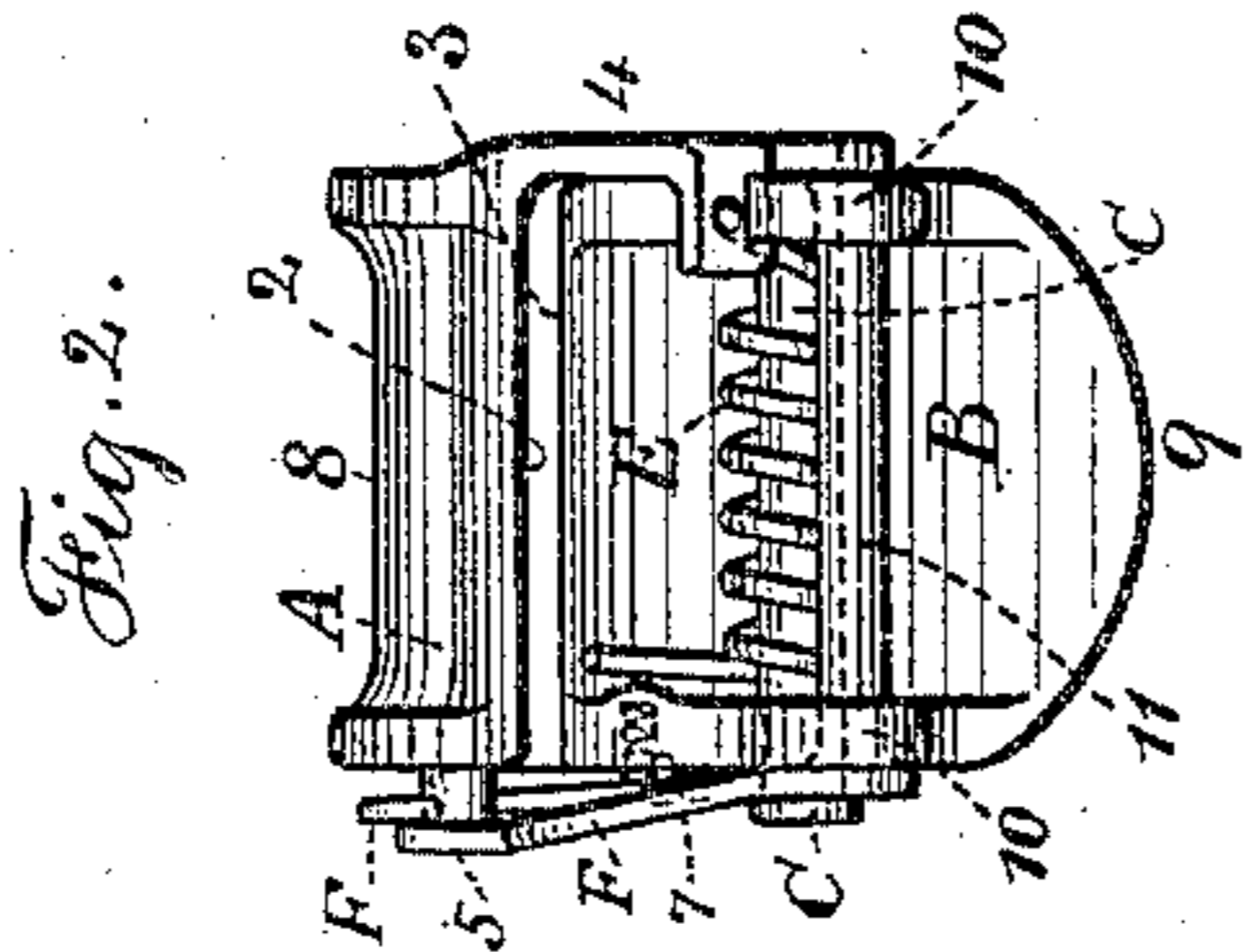
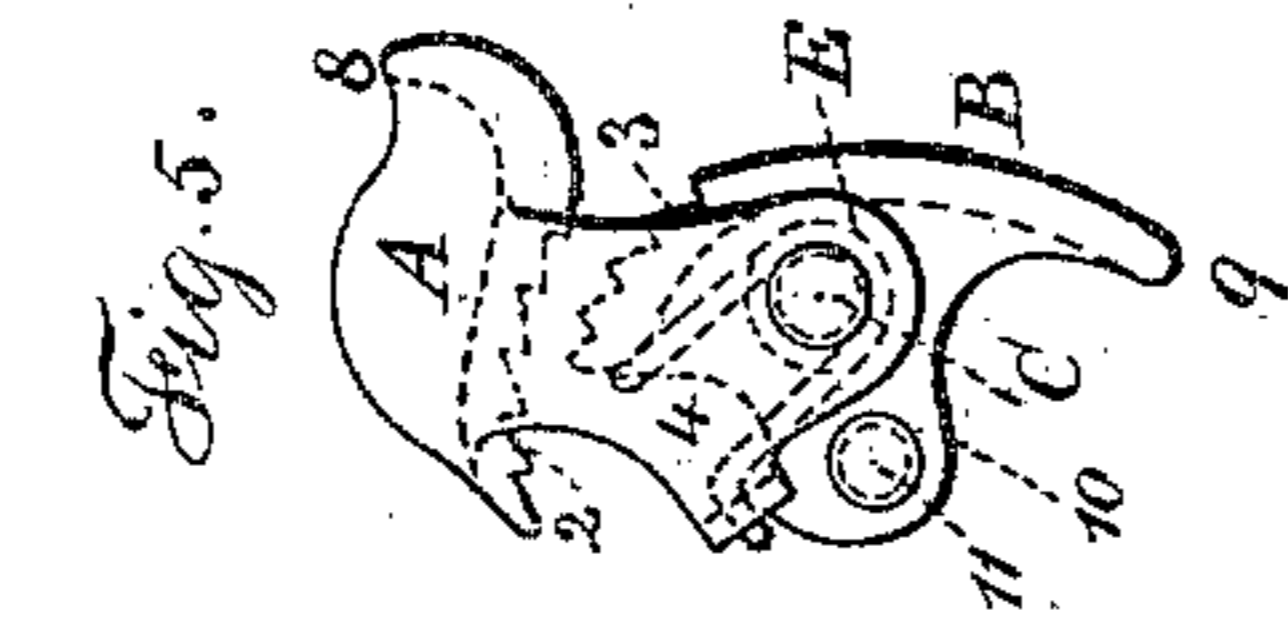
M. F. BERRY & N. STAFFORD.  
REIN BUTTON.

No. 444,874.

Patented Jan. 20, 1891.



Witnesses:  
J. Staib  
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Inventors:  
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# UNITED STATES PATENT OFFICE.

MARCELLUS F. BERRY AND NELSON STAFFORD, OF BROOKLYN, NEW YORK.

## REIN-BUTTON.

SPECIFICATION forming part of Letters Patent No. 444,874, dated January 20, 1891.

Application filed May 17, 1890. Serial No. 352,122. (No model.)

*To all whom it may concern:*

Be it known that we, MARCELLUS F. BERRY and NELSON STAFFORD, citizens of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Rein Hand-Pieces, of which the following is a specification.

Handles and leather loops have in many instances been connected with driving-reins for more reliably guiding horses, especially spirited ones; but great difficulty has been experienced in consequence of the loop or handle either slipping upon the rein or being in an inconvenient position thereon.

The object of the present invention is to provide a rein hand-piece in the form of a self-acting clamp that grasps the rein with a force proportionate to the pull applied to such hand-piece, so that the hand-piece cannot slip upon the rein and by an easy movement of the hand upon the hand-piece the clamping action thereof upon the rein can be released, so that the hand-piece can be slipped in either one direction or the other upon the rein and the grasp thereof is automatically restored, and this hand-piece is also adapted to the reception of a hook and leather or flexible loop especially convenient for the use of ladies in driving.

In the drawings, Figure 1 is a longitudinal section showing the hand-piece, the rein, and a leather loop therewith connected. Fig. 2 is a rear elevation of the hand-piece detached. Fig. 3 shows the hand-piece with the movable hook at the open end of the hand-piece. Fig. 4 is a plan view of the metallic connection at the end of the leather hand-loop, and Fig. 5 shows the closed end of the hand-piece.

The rein hand-piece is composed of the two parts A and B, the portion A being a fixed jaw and the portion B a swinging jaw supported upon the stud or pivot C, and the faces 2 and 3 are preferably corrugated, as shown in Fig. 1, and the face 3 of the jaw B is preferably convex, as represented, in order that the rein D when between the jaws A and B may be bent into a curve, and there is a spring E, which tends to press the face 3 of the jaw B against the rein, and in consequence of the eccentricity of the face 2 of the jaw A the face 3 of the jaw B approaches

this face 2 as the jaw B is swung on the pivot c by the action of the spring E.

We remark that the shape and sizes of the jaws A and B may be varied to suit the convenience of the party using the same; but we prefer to make the jaws hollow, so as to be sufficiently light, and the pivot C is represented as extending out from the side plate 4 of the jaw A. This side plate 4 and the jaw A may be made in one, or the side plate may be secured or riveted to the end of the jaw A, and in order to prevent the pivot C being bent by the strain thereon when the rein is clamped we provide a hook F, which swings upon the end of the pivot C, and the open end of the hook passes around and incloses the stud 5 upon the jaw A, and it is preferable to make this hook F to yield laterally and to form an offset at 6 upon the hook, so that this offset 6 will swing up against the edge or corner of the stud 5 when the hook is turned fully to its place, and to unhook the hook F it is necessary to push the same bodily toward the jaw A, so that the offset 6 will pass behind the head of the stud 5 before such hook can be swung away from the stud, and in order to throw the hook laterally and outwardly we prefer to use a spring-stud 7, acting against the inner face of the hook near the pivot thereof, which spring-stud is compressed when the pressure is applied to force the moving end of the hook toward the jaw A in separating the offset 6 from the stud 5.

We do not limit ourselves to any particular construction of the spring E; but prefer to make the same helical and provided with two arms, one at each end, so that this spring E may surround the pivot-stud C, with one end bearing against the swinging jaw B and the other end connected with the side plate 4 or passing beneath a flange upon the same, as represented in Figs. 2 and 5.

The forward faces of the jaws A and B are rounding, so that the fingers of the hand can lie against the rounding surfaces of these jaws when the same are upon the rein D, and it will be observed that the pressure of the fingers against the rounding surfaces of these jaws tends to swing the jaw B upon its pivot C and cause the surfaces 2 and 3 of the respective jaws to clamp the rein with increased

force, so that it is impossible for the hand-piece to slip upon the rein when the same is in use; but by applying pressure between the thumb and finger against the portions 8 and 5 9 of the jaws A and B the jaw B will be swung upon its pivot-stud C in such a way as to open the jaw and loosen the clamping action upon the rein, and by this movement the hand-piece can be easily liberated and slipped 10 along upon the rein in either direction to suit the convenience of the driver.

At the back of the swinging jaw B are two projections or ears 10 and a cross-rod 11, permanently fastened between them. These are 15 only required when the hand-piece is adapted to being connected to a leather or other loop G, and at the forward end of this loop G there is a hook H with a spring-tongue I, and this hook can be engaged with the cross-rod 11, so 20 as to connect the loop G with the swinging jaw B. Hence the pull upon the loop G is taken upon the jaw B in a direction that tends to clamp the rein between the jaws, and in order to keep the loop G in a convenient position in 25 relation to the rein D the sheet metal of the hook H is extended backwardly and provided with the lips K, turned backwardly and inwardly sufficiently to pass over the edges of the rein and hold the same in position, and 30 the distance between these lips K is sufficient to allow the rein to be moved into a diagonal position and passed out from between the lips when the loop G is to be disconnected from the rein and the reverse 35 when the loop is to be attached to such rein. It is to be understood that a hand-piece is to be provided for each of the reins and also two loops when such loops are made use of.

We claim as our invention—

40 1. In a rein-holder, the jaws A and B, with corrugated surfaces, between which the rein is received, and rounding surfaces, against which the fingers press in grasping the rein-holder, in combination with the pivot-stud 45 upon which the jaw B swings, said pivot-stud being connected to the jaw A by the plate 4 at one side, the rein-holder being open

at the other side for the lateral insertion of the rein, and a spring for forcing the faces of the jaws toward each other in clamping the 50 rein, substantially as set forth.

2. The combination, in a hand-hold for reins, of the jaw A, having a side plate 4 and the pivot-stud C projecting therefrom, the swinging jaw B upon such pivot-stud, a spring 55 tending to close the jaws in grasping the rein, and the movable hook F, extending from the pivot-stud C to the fixed jaw A and serving to confine the rein within the clamp, substantially as set forth. 60

3. The combination, in a rein hand-piece, with the fixed jaw A, side plate 4, and pivot-stud C, of the swinging jaw B upon the pivot-stud, a spring around the pivot-stud to move the swinging jaw, a spring-hook at the end of 65 the pivot-stud, and a stud upon the fixed jaw with which the spring-hook is engaged or from which it can be separated by lateral pressure as the hook is swung, substantially as set forth. 70

4. The rein hand-piece adapted to be grasped by the fingers and having fixed and swinging jaws, a spring to move the swinging jaw, and a rod connected with the swinging jaw, in combination with a loop and a hook at the 75 end of the loop adapted to be removably connected with the rod upon the swinging jaw, substantially as set forth.

5. The combination, with the clamping hand-piece adapted to be removably connected with the rein, of a loop, a hook connected with the loop for attaching the hand-piece and loop, and the lips K upon the sheet-metal base of the hook and projecting inwardly from the diagonally-opposite corners 85 for receiving between them the rein, substantially as set forth.

Signed by us this 15th day of May, 1890.

MARCELLUS F. BERRY.  
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Witnesses:

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