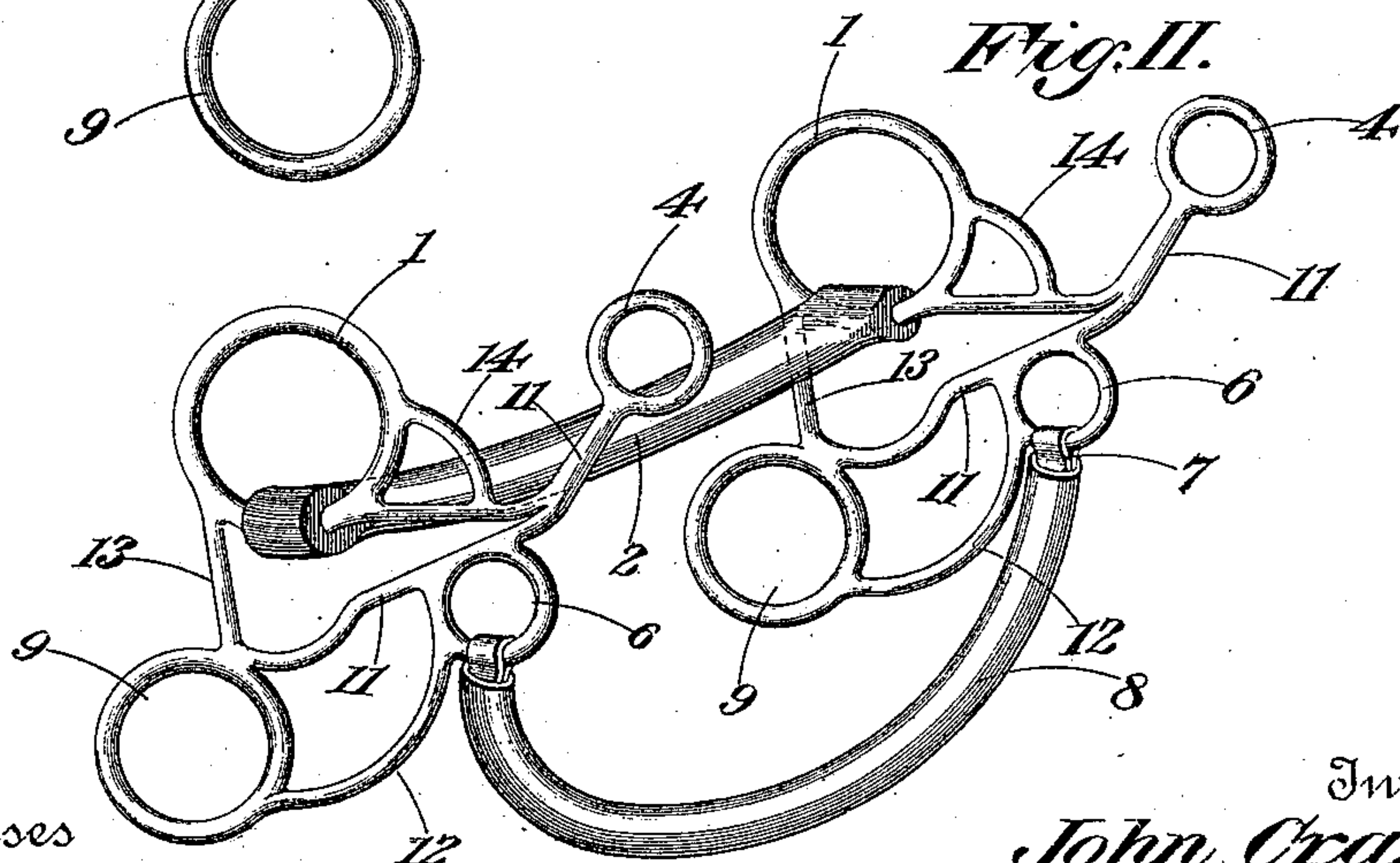
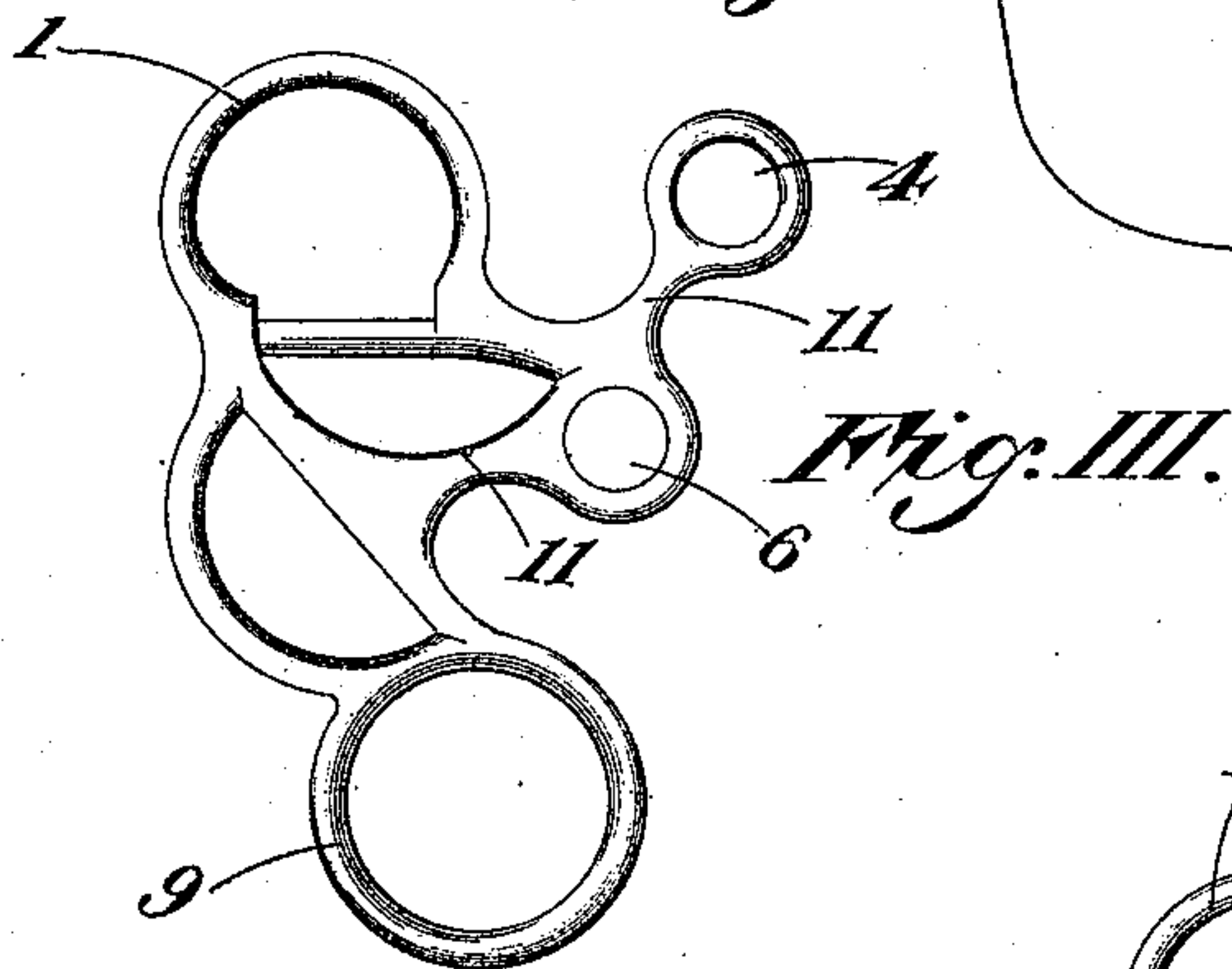
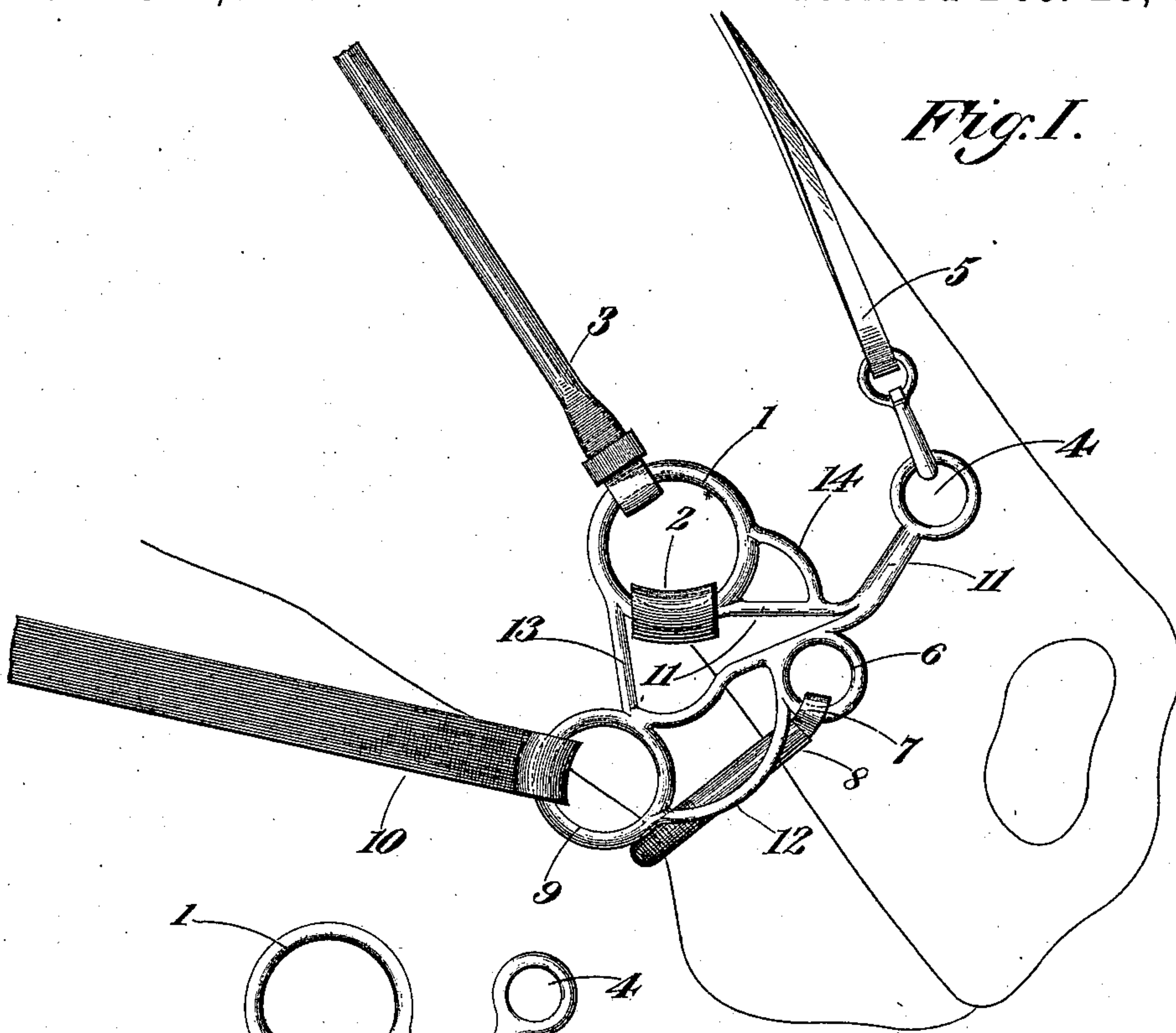


(No Model.)

J. CRAMER.  
BRIDLE BIT.

No. 574,304.

Patented Dec. 29, 1896.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN CRAMER, OF LOCK HAVEN, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO JOHN C. SHANK AND TORRENCE C. HIPPLE, OF SAME PLACE.

## BRIDLE-BIT.

SPECIFICATION forming part of Letters Patent No. 574,304, dated December 29, 1896.

Application filed April 14, 1896. Serial No. 587,437. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN CRAMER, of Lock Haven, county of Clinton, State of Pennsylvania, have invented certain new and useful  
5 Improvements in Bridle-Bits, of which the following is a specification, reference being had to the accompanying drawings.

One object of my invention is to produce a bit so constructed as to compel a horse upon  
10 which it is employed to keep his mouth closed, thereby preventing his indulgence of the bad habits, such as tongue-lolling and the like, to which many horses when bitted in the ordinary way are addicted.

15 Another object of my invention is to provide in a bit means for applying the force exerted by a pull upon the reins against the roof of the horse's mouth instead of applying it in the ordinary way as a pull upon the  
20 lower jaw.

In the accompanying drawings, Figure I is a side elevation of the lower portion of a horse's head, showing my bit in position as in use with the usual strap connections at-  
25 tached. Fig. II is a perspective view of the bit detached. Fig. III is a side elevation of a slightly-modified form of bit.

Referring to the figures on the drawings, 1 indicates the cheek-piece rings of my bit, to  
30 which is secured a mouthpiece 2 or bit proper, one ring being provided at each end of the mouthpiece. The mouthpiece may be made of any suitable and ordinary material, that illustrated being leather.

35 3 indicates the cheek-piece of a bridle, to which a ring 1 is secured, a cheek-piece being provided for each side of the bridle head-stall. The cheek-pieces support the opposite sides of the mouthpiece at the proper position  
40 within the horse's mouth.

4 indicates overdraw-rings, and 5 an ordinary overdraw secured thereto.

6 indicates chin-strap rings, and 7 the chin-strap, which may be made of leather or other  
45 material, covered, as illustrated, with a piece of rubber tubing 8.

9 indicates the rein-rings, to which the reins 10 are secured. The several rings are united, so as to bring them into their proper  
50 relations one with another, as by a suitable

framework of metal made integral with the rings themselves.

The main body part of the framework is indicated at 11, and I prefer to employ a brace 12 between the rings 9 and 6, a brace 13 be-  
55 tween the rings 9 and 1, and a brace 14 between the ring 1 and the body part 11 of the main frame. These braces severally serve to afford additional strength to resist strains that may be put upon the bit by force applied  
60 to the respective rings.

The relative arrangement of the rings affords the means for accomplishing the objects of my invention, and I shall describe them with reference to their normal positions  
65 shown in Fig. I. In that figure the ring 1 may be taken as the element with which the other rings are to be compared respecting their several relations and functions, the ring 1 serving to hold the mouthpiece upon the  
70 cheek-straps substantially in the ordinary way. With reference, therefore, to ring 1 ring 4 occupies a position in front of and preferably somewhat elevated above the mouth-  
75 piece 2. Ring 6 is located in front of and somewhat below the mouthpiece 2. The ring 9, being in effect the main operating-ring, is located below the other three rings, its distance from the mouthpiece 2 determining the leverage obtainable through it upon the other  
80 parts.

As will hereinafter more clearly appear, the exact relations in point of distance between the rings 4, 6, and 9 and the ring 1 may be varied, as shown, for example, in Fig. III, the  
85 change in form therein illustrated consisting, substantially, in shortening the distance between the rings 4 and 6 and increasing the distance between the rings 6 and 9. These, however, constitute matters of detail, the re-  
90 lations of the several parts remaining always substantially the same.

In practice the bit, being supported in the mouth substantially as shown in Fig. I, is loosely supported by the cheek-pieces so long  
95 as there is no tension upon the reins 10. The overcheck, however, exerts a constant tension directly upon the chin-strap 12, a tension which cannot be relieved by any movement of the horse's head and which tends to keep  
100



the horse's mouth substantially closed. Moreover, if the parts are properly adjusted the tension of the overcheck through the chin-strap binds exclusively against the chin of the horse and not upon the mouthpiece. Whenever a pull upon the reins is made, the rings will draw rearwardly and upwardly. The rings 4 are constituted into the fulcrum, and the entire leverage of the body parts 11 is exerted against the mouthpiece 2 to force it against the roof of the horse's mouth, no force being exerted to draw the lower jaw open, but, on the contrary, the action of the chin-strap continuing to force it shut.

The constant action of the chin-strap under the different conditions above described to keep the mouth closed prevents all bad habits upon the part of the horse, such as tongue-lolling, cribbing, stump-sucking, or the like, which require that he shall be at liberty to open his mouth.

The application of the power exerted upon the reins of the bit to the roof of the mouth instead of against the lower jaw makes the use of the bit comparatively easy and prevents soreness.

I do not limit myself to the details of construction herein shown and described, but reserve the right to modify the same within the scope of my invention.

One form of a modification is illustrated and others readily suggest themselves. For example, the employment of the term "ring" to designate the several parts to which the straps are applied is not intended as a limitation, the shape of some or such parts being susceptible of variation from a circular form.

What I claim is—

1. In a bridle-bit, the combination with a mouthpiece and cheek-piece, rings secured thereto, of overdraw, chin-straps, and rein-rings secured to the cheek-piece rings, and to one side of the same, substantially as set forth.

2. In a bridle-bit, the combination with a mouthpiece, and cheek-piece ring secured thereto, of an overdraw-ring above and in front of the mouthpiece, a chin-strap ring below and in front of the mouthpiece, and a depending rein-ring, all substantially as set forth.

3. In a bridle-bit, the combination with a mouthpiece, and cheek-piece rings, of three rings carried substantially in line with each other and all three located to one side of the cheek-piece rings, respectively, substantially as set forth.

4. As a part of a bridle-bit, a side piece consisting of a cheek-piece ring and three other rings united together, the three rings being arranged to one side of the cheek-piece ring, substantially as set forth.

5. As a part of a bridle-bit, a side piece composed of a cheek-piece ring, overdraw, chin-strap and rein rings, and a body part uniting the same, of braces connecting the chin-strap, rein and cheek-piece rings, and the body part respectively, substantially as set forth.

In testimony of all which I have hereto subscribed my name.

JOHN CRAMER.

Witnesses:

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B. F. THOMPSON.