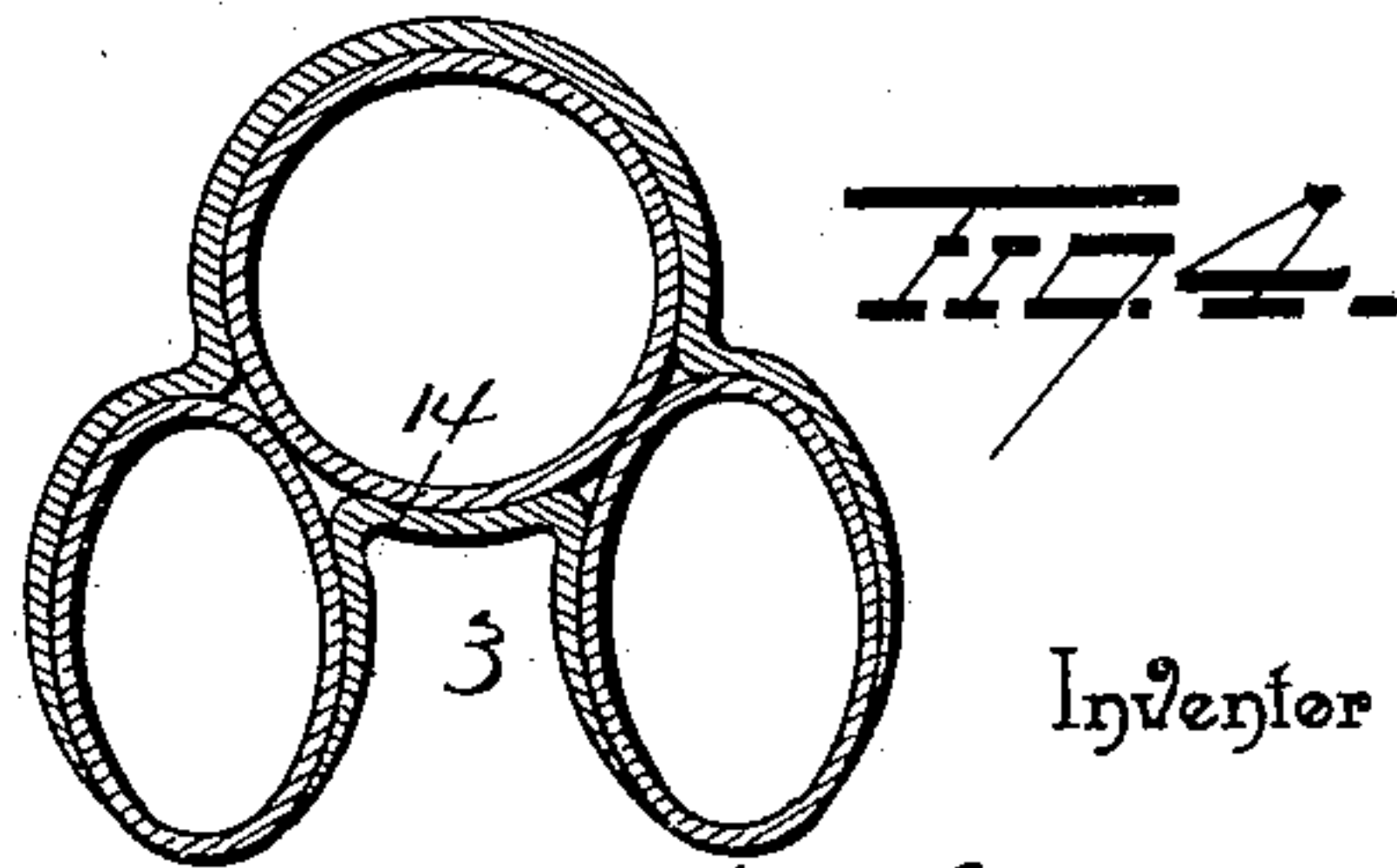
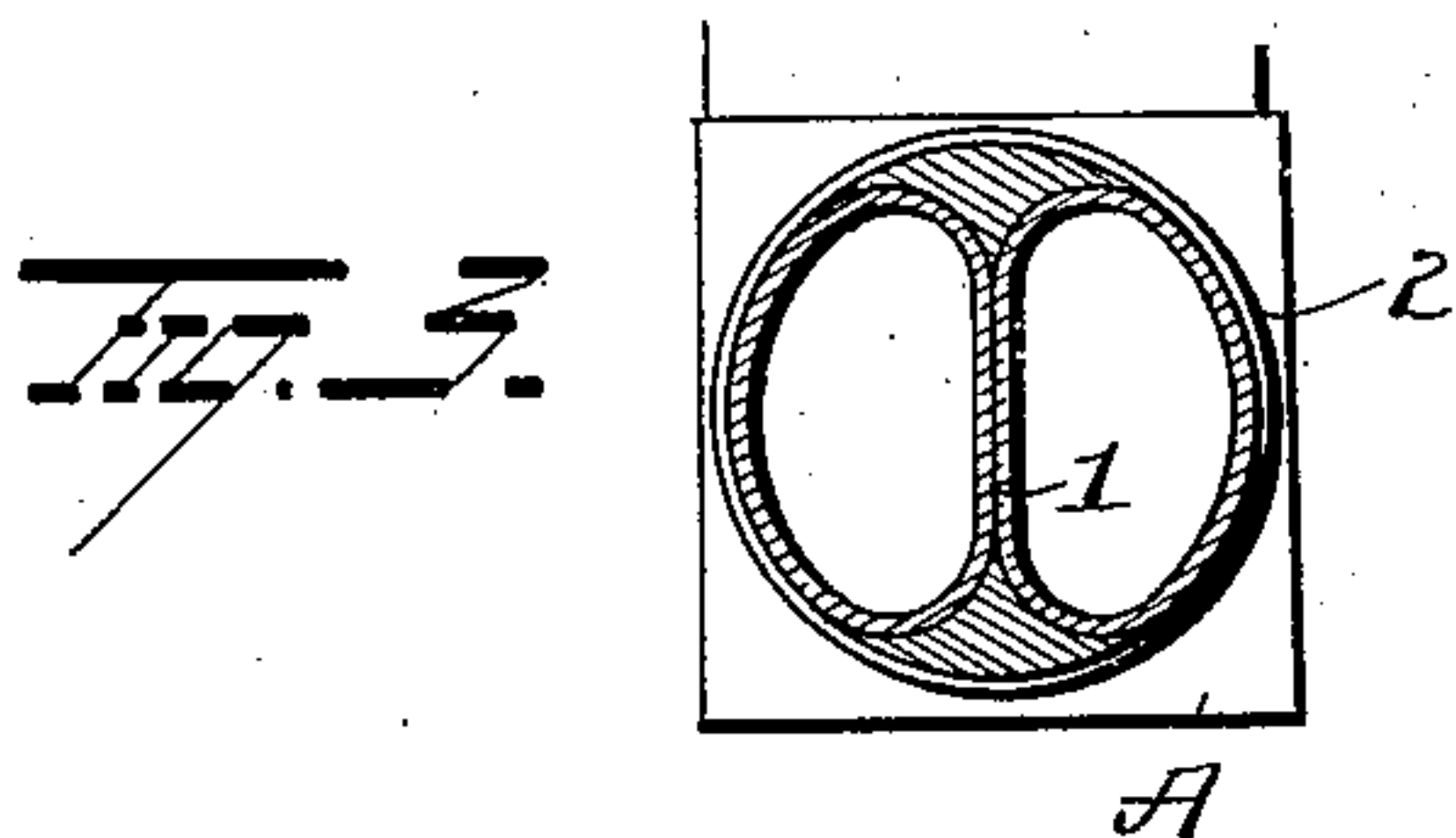
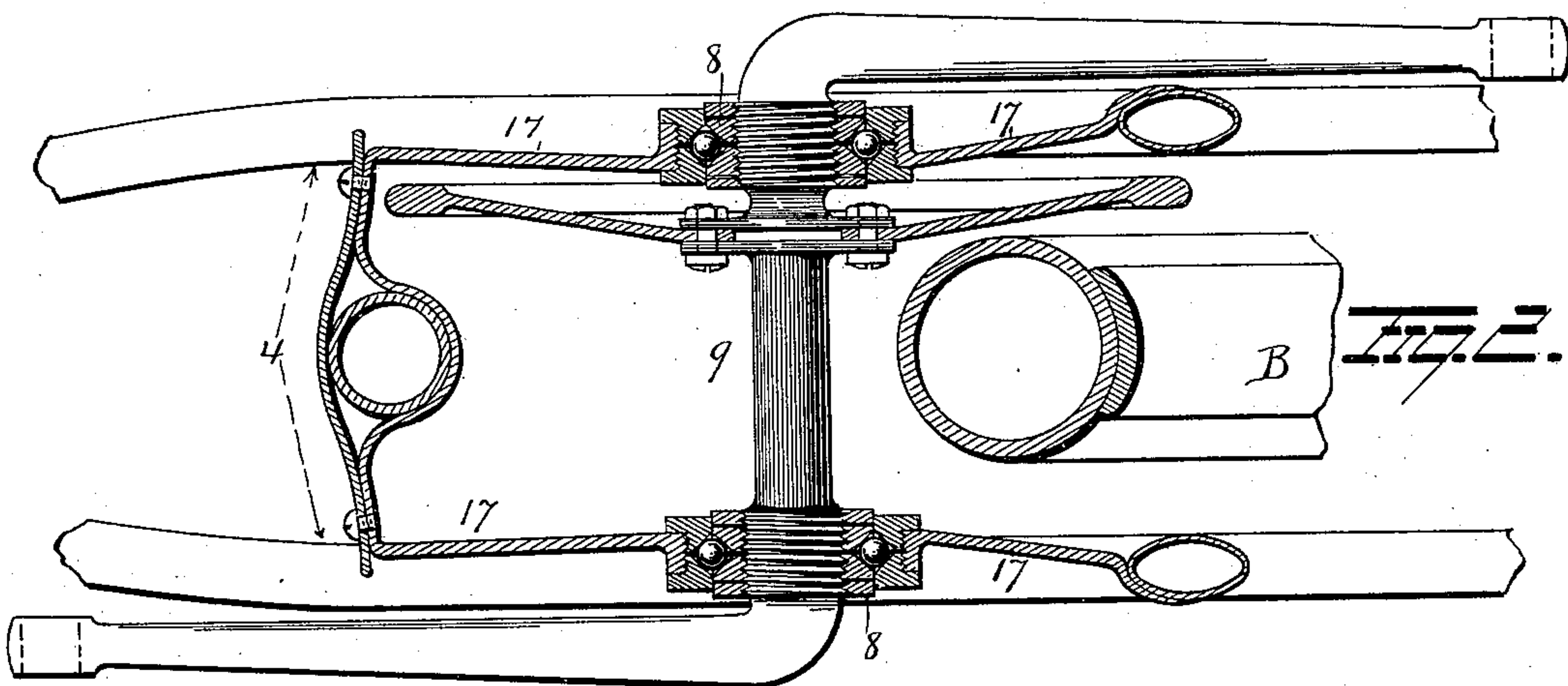
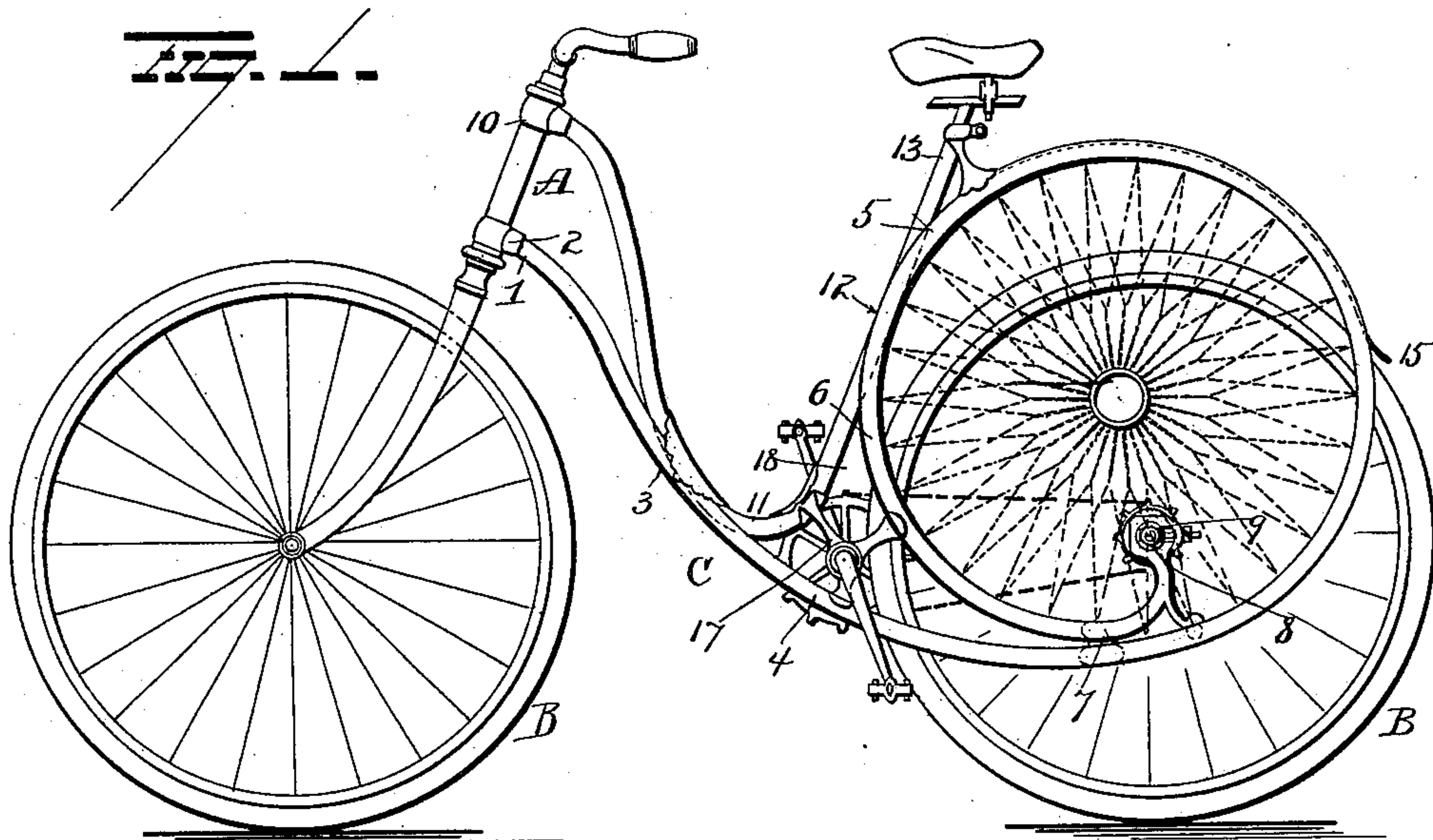


(No Model.)

H. BUSSE.
BICYCLE.

No. 599,993.

Patented Mar. 1, 1898.



Witnesses
E. Nottingham.
G. F. Downing.

Inventor
H. Busse
By H. A. Seymour
Attorney

UNITED STATES PATENT OFFICE.

HENRY BUSSE, OF WILLIAMSPORT, PENNSYLVANIA, ASSIGNOR TO CHARLES
R. HARRIS, OF SAME PLACE.

BICYCLE.

SPECIFICATION forming part of Letters Patent No. 599,993, dated March 1, 1898.

Application filed April 10, 1897. Serial No. 631,558. (No model.)

To all whom it may concern:

Be it known that I, HENRY BUSSE, a resident of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Bicycles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in bicycles; and the object is to derive strength, simplicity, and cheapness of construction, as well as beauty in appearance, and, further, to afford ease to the rider and prevent the tendency in the frame to twist laterally.

With these ends in view my invention consists in certain novel features of construction and combinations of parts, which will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved bicycle particularly adapted to the use of lady cyclists. Fig. 2 is a horizontal section, and Figs. 3 and 4 are sectional views through the tubing at different points.

A represents the steering-head, B B the wheels, and C the frame, of the machine. The frame is made of tubing, which may be perfectly round in cross-section, D-shaped, or elliptical. The two tubes of which the frame is constructed and comprising the main portion of the frame are similar in form and placed side by side. At point 1 these two tubes are compressed and approximately cylindrical in cross-section when together, as shown in Fig. 3, to enter the fitting 2, by which they are connected to the steering-head A. From this point the tubes extend rearward and downward, diverging slightly from each other to a point 3, where they are about one-half inch apart. Thence they continue to diverge until they reach point 4, where they are separated about four and one-half inches. From this point they continue rearward and gradually upward substantially the same distance apart and in corresponding curves, receiving the rear wheel B between them. Above this wheel these two begin to converge until they about reach each other at point 5, from which point

they continue downward and then rearward, again spreading apart at point 6 to straddle the rear wheel and finally joining the tube at point 7 after having substantially formed a perfect circle. The extreme ends of these tubes are bent inwardly and have formed therein bearings 8, which receive the axle 9 of the rear wheel, these bearings being eccentrically located relative to the circular rear portion of the frame.

A single tube is joined to the steering-head a short distance above the first tubes mentioned by means of a fitting 10. From this point the single tube is curved gradually downward and rearward to the point 3, where it joins the other two tubes and continues downward partially between them to the lowest point of the dip 11 in the frame, when it abruptly extends upward in oblique direction, being interposed between and secured to the other two tubes at point 12 in the forward side of the circular portion of the frame. Finally, this tube terminates at its extreme upper end in the seat-post socket 13. At the points of juncture between the three tubes reinforcing-plate 14 may be secured. Also, mud-guards, as at 15, may be interposed between the tubes at places where such devices are required.

In the space 16, formed by and between the several tubes just forward of the rear wheel, the crank-hanger 17 is secured, its several ends being brazed or otherwise secured to the several tubes, numbering five, at this point. The pedal crank-shaft is journaled in the usual manner in this hanger, and the sprocket-wheel keyed thereon is housed and protected in the space 18, formed by these several tubes and the hanger. The sprocket-chain extends from this sprocket-wheel to the wheel on the rear axle 9 within the frame, so that it also is guarded.

In addition to the parts described a skirt-guard of laces or other material can be easily applied to the circular rear portion of the frame, thus completely guarding and inclosing all of these moving parts and keeping the skirts of the rider therefrom and absolutely avoiding the danger of their getting caught in any part of the machine or catching grease or dust therefrom.

It is evident that numerous slight changes might be made in the general form and arrangement of the several parts herein shown and described without departing from the spirit and scope of my invention, and hence I would have it understood that I do not limit myself to the precise details of construction herein shown and described; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a bicycle, a frame consisting essentially of a pair of tubes located side by side and bent at the rear ends into a substantially circular form, the extreme ends terminating in bearings located eccentrically within said circular portion.

2. In a bicycle, the combination with a steering-head and wheels, of a frame comprising two tubes connected at one end to the steering-head, thence extending downwardly and rearwardly, diverging from each other to receive the rear wheel, converging above the rear wheel and connected together, then diverging to straddle the rear wheel, secured

near their ends to their respective tubes and finally extending inward and having bearings formed at these ends to receive the axle of the rear wheel.

3. In a bicycle, the combination with a steering-head and wheels, of a frame composed of three tubes, two of which start at a common point where they are connected with the steering-head, from which point they extend rearwardly and downwardly and around to form substantially a circle and the third tube connected at one end to the steering-head a short distance from the point of connection of the other two tubes, from which point it extends downwardly joining the other two tubes, then forming a dip, thence extending upwardly, joining the other two tubes and terminating at its upper end in a support for the saddle.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HENRY BUSSE.

Witnesses:

F. H. MCCORMICK,
T. L. PAINTER.