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Patented Sept. 12, 1899.

E. J. DUNN.  
VELOCIPED.

(Application filed Oct. 5, 1897.)

(No Model.)

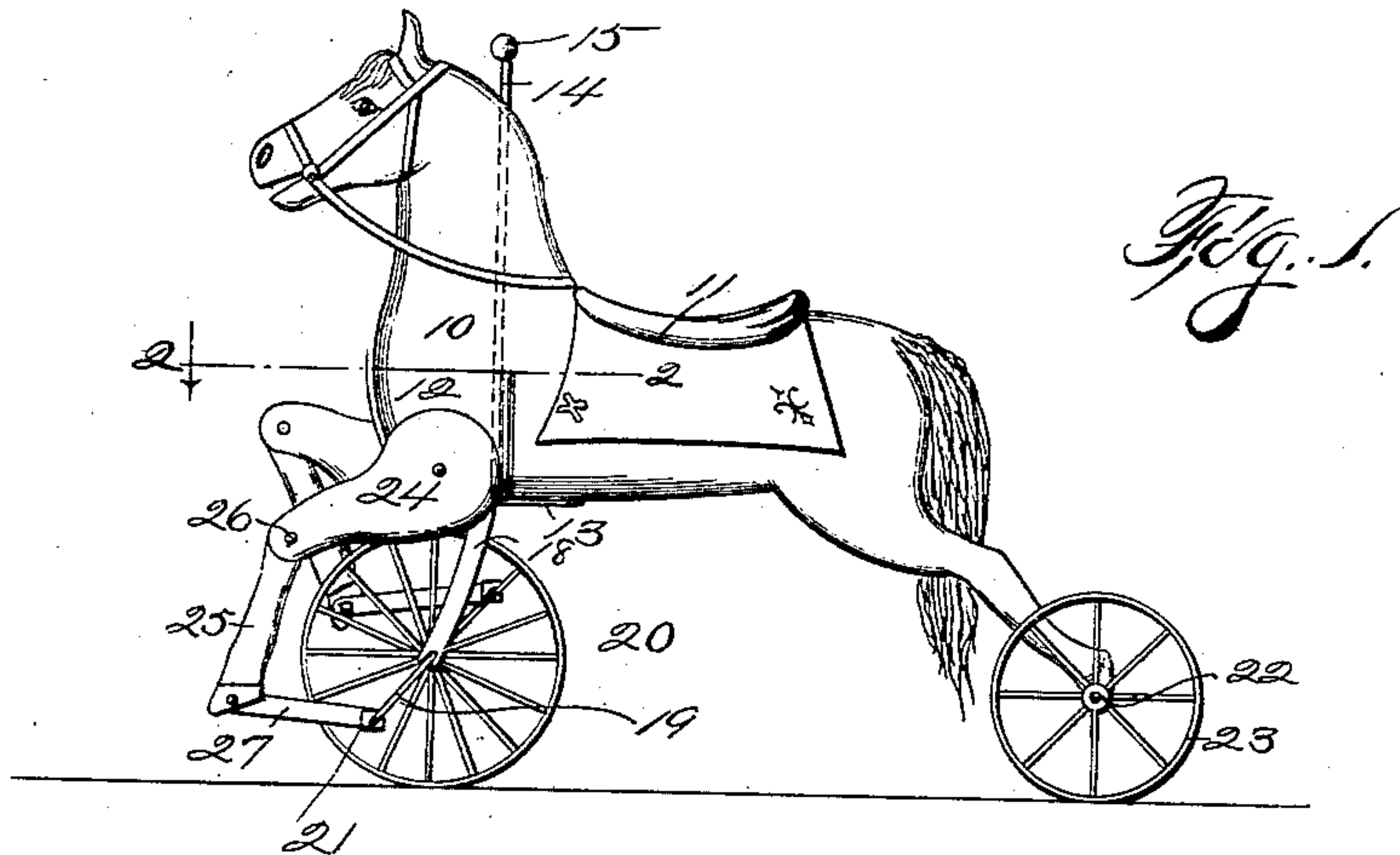


Fig. 2.

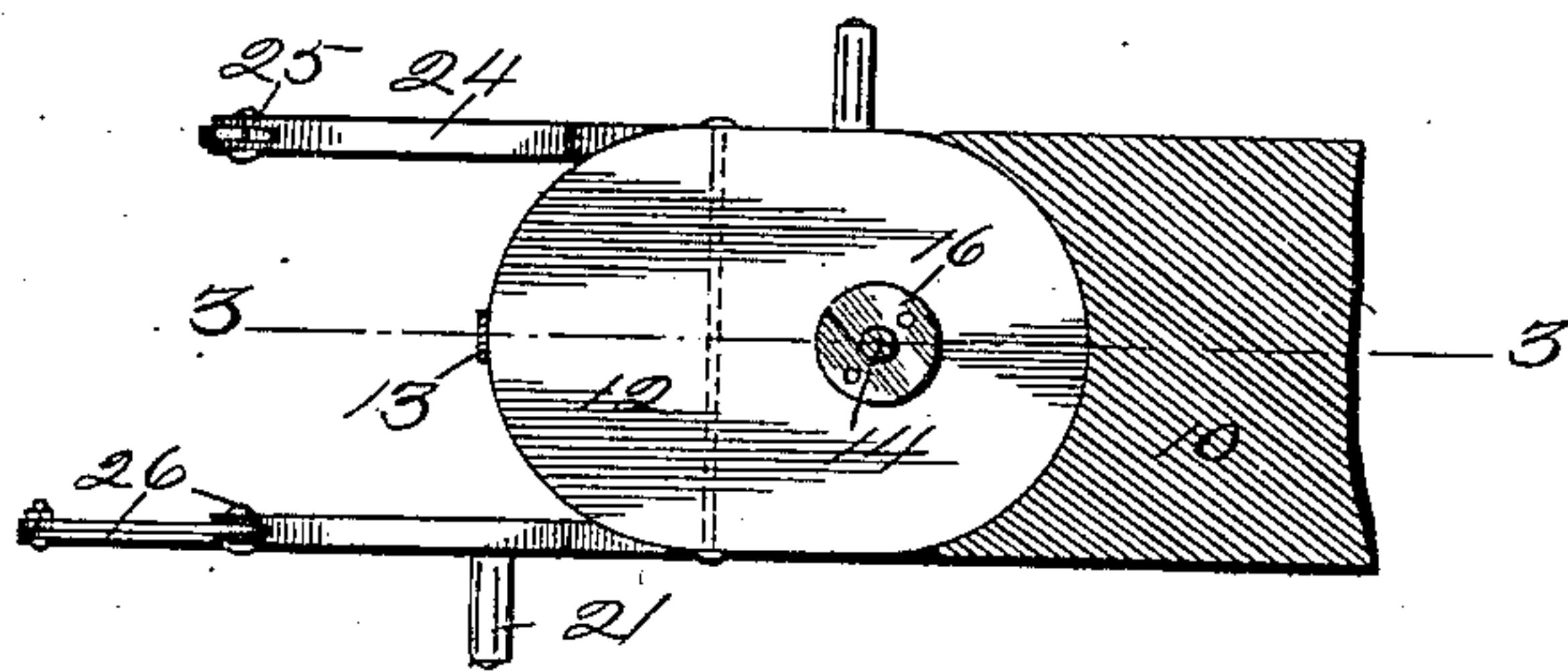
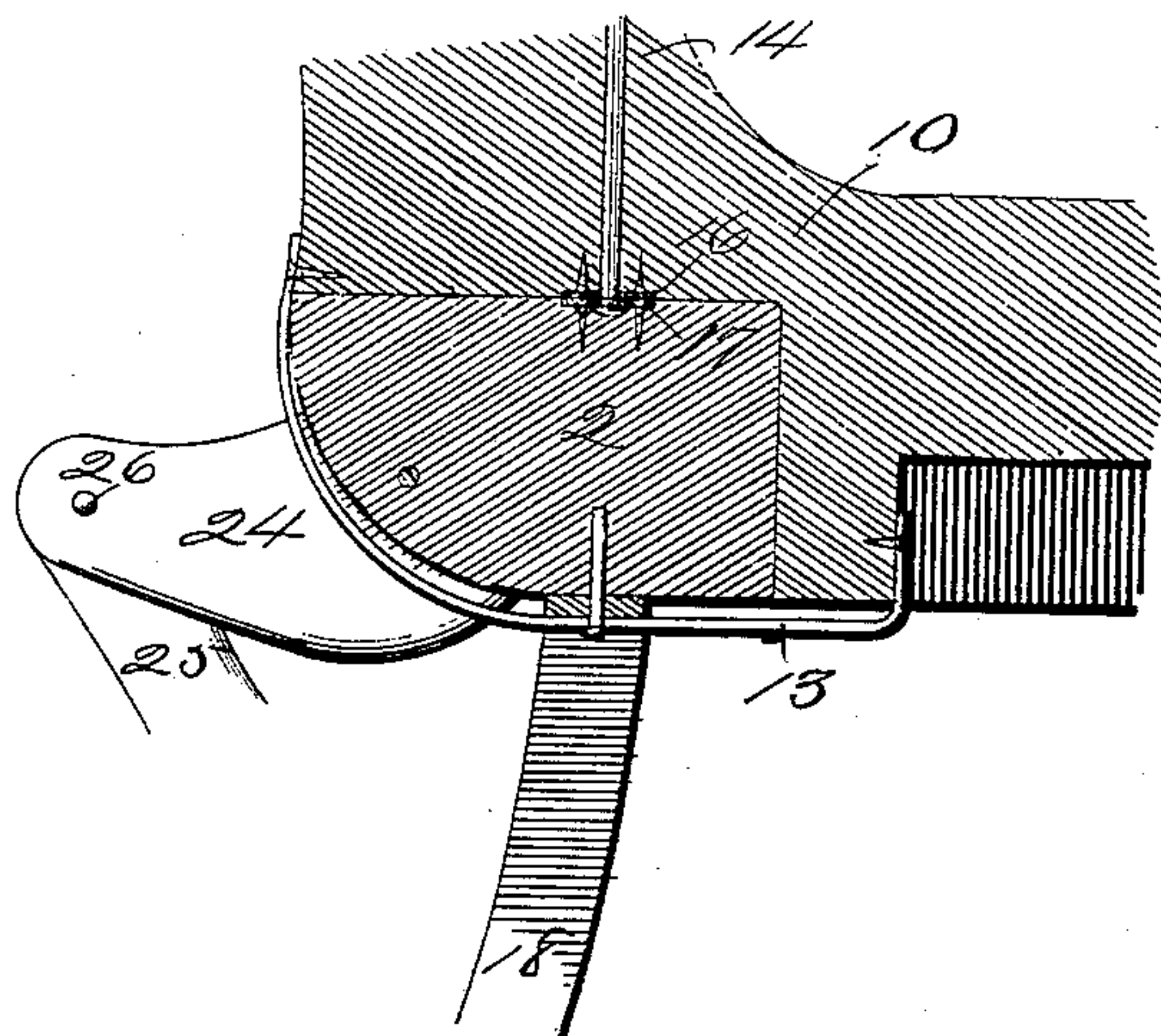


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## VELOCIPÈDE.

SPECIFICATION forming part of Letters Patent No. 632,809, dated September 12, 1899.

Application filed October 5, 1897. Serial No 654,190. (No model.)

*To all whom it may concern:*

Be it known that I, EMMA J. DUNN, a citizen of the United States, residing at Humeston, in the county of Wayne and State of Iowa, have invented a new and useful Velocipede, of which the following is a specification.

Heretofore a hobby-horse had the head and neck pivotally connected with the body and the front legs rigidly connected with the neck and head and an axle having a fixed wheel at its center and cranks on its ends fixed to the front legs and neck and head and pivotally connected with the shoulders or front portion of the body. It is objectionable to give lateral motion to the head and neck relative to the body and the rider; and my object is to combine a steering device with the head and the front legs in such a manner that the direction of advance can be governed and the head and neck retained in alinement with the body and the front legs moved to simulate the natural motions of a horse and to move in parallel lines with the body and head of the horse.

My invention consists in the arrangement and combination of parts, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a side view of the complete velocipede. Fig. 2 shows a horizontal section taken through the indicated line 2 2 of Fig. 1. Fig. 3 shows a vertical section on line 3 3 of Fig. 2.

Referring to the accompanying drawings, the reference-numeral 10 is used to indicate a wooden block made to simulate a horse's body and upon which is mounted a saddle 11.

The reference-numeral 12 is used to indicate a portion of the lower forward end of the horse's body, pivoted to the body proper to swing in a horizontal plane and held in place by a brace 13, secured at one end to the under surface of the body and at its other end to the front of the body, and a pivot fixed to the brace or bearer 13 projects up into a corresponding bore in the shoulder part 12, as shown in Fig. 3.

14 indicates a steering-rod passing vertically through an opening in the horse's body and having a handle-bar 15 fixed to its top. At its lower end it is secured to the pivoted

part 12, and two bearing-plates 16 and 17 are fixed to the contracting-surfaces of the part 12 and the body to minimize friction. This steering post or rod is in alinement with the pivot that projects perpendicularly from the bearer or brace 13.

18 indicates a steering-fork fixed to the under surface of the part 12 and having the crank-axle 19 and wheel 20 fixed thereto. The pedals 21 are mounted on the cranks in the manner usual in velocipedes. By placing the pedals on the outer ends of the cranks of the axle 19 and connecting said cranks with the foot ends of the lower leg portions 25 by means of the rods 27 each jointed leg will be bent forward at each revolution of the wheel and at each forward and downward motion of each pedal and the rider's foot on the pedal, so that the jointed legs and the rods connecting their feet with the crank-axle will not come in contact with the feet and legs of the rider. Heretofore jointed rods have been connected with the ends of cranks of the axle of the wheel and with the upper portion of a rigid leg in such a manner that the jointed rods would come in contact with the legs of the rider at each revolution of the wheel, and the advantages of my specific arrangement and combination of parts is therefore obvious.

22 indicates a stationary axle fixed to the rear legs of the horse and having the wheels 23 rotatably mounted on its ends.

From the foregoing description it is obvious that the velocipede may be used in the same manner as the usual velocipede or tricycle and that a cheap, strong, durable, and attractive machine is provided.

I have also provided means for adding to the attractive appearance of the machine by causing the fore legs of the horse to simulate the motions of trotting, as follows:

The numeral 24 indicates the upper fore legs, which are pivoted to the part 12 to move relative thereto in a vertical plane and with the part 12 in its horizontal movement. The lower leg portions 25 are hinged to the upper leg portions at 26, and 27 indicates rods fixed to the fore feet and pivotally attached to the cranks of the axle 19. Hence as the machine is moved over the ground-surface the said fore legs are operated in a manner approaching in appearance the motions of



trotting, while same does not in any manner affect or interfere with the propulsion or steering of the velocipede in the ordinary way.

I am aware a steering-shaft has been rigidly connected with rigid front legs and jointed rods pivoted to the shanks and connected with cranks on the ends of a wheel-axle; but in no instance has the shoulder portion of the body been rigidly connected with a steering-shaft, jointed legs pivotally connected with the shoulder portion and also pivotally connected with cranks on the ends of a wheel-axle by means of rods to operate in the manner contemplated by my invention.

Having thus described the machine, what I claim as my invention, and desire to secure by Letters Patent of the United States therefor, is—

1. In a velocipede, a frame shaped to resemble a horse or the like, the pivoted shoulder portion 12, the steering post or rod 14 extended through the fixed neck portion and fixed to the pivoted shoulder portion pointed legs pivoted to the said shoulder portion, a forked wheel-bearer 18, fixed to the under side of the pivoted shoulder portion and bearer or brace 13 fixed to the under portion of the body or block 10, and to the fixed neck portion and provided with a pivot to enter a bore in the shoulder portion, a wheel having cranks on the ends of its axle, pedals on the ends of the cranks and rods pivotally con-

nected with the cranks and the feet of the jointed legs, all arranged and combined as and for the purposes stated.

2. A velocipede comprising a frame or body shaped like a horse or like four-legged animal, the shoulder portion thereof being severed therefrom and pivotally connected therewith, a steering post or rod extended through a bore in the fixed neck portion of the body or frame and fixed to the top of the shoulder portion, a forked wheel-bearer fixed to the under side of the shoulder portion, a brace or bearer fixed to the body portion to extend over the lower portion of the pivoted shoulder from the front to the rear thereof and provided with a fixed pivot to enter a bore in the shoulder portion in alinement with the steering post or rod extended through the fixed neck portion, a wheel journaled to the branches of the forked wheel-bearer and provided with cranks on the ends of its axle, pedals on said cranks jointed legs pivoted to the pivoted shoulder-rods pivotally connected with the said cranks and the feet of the jointed legs and wheels mounted on the fixed rear legs, all arranged and combined as and for the purposes shown and described.

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