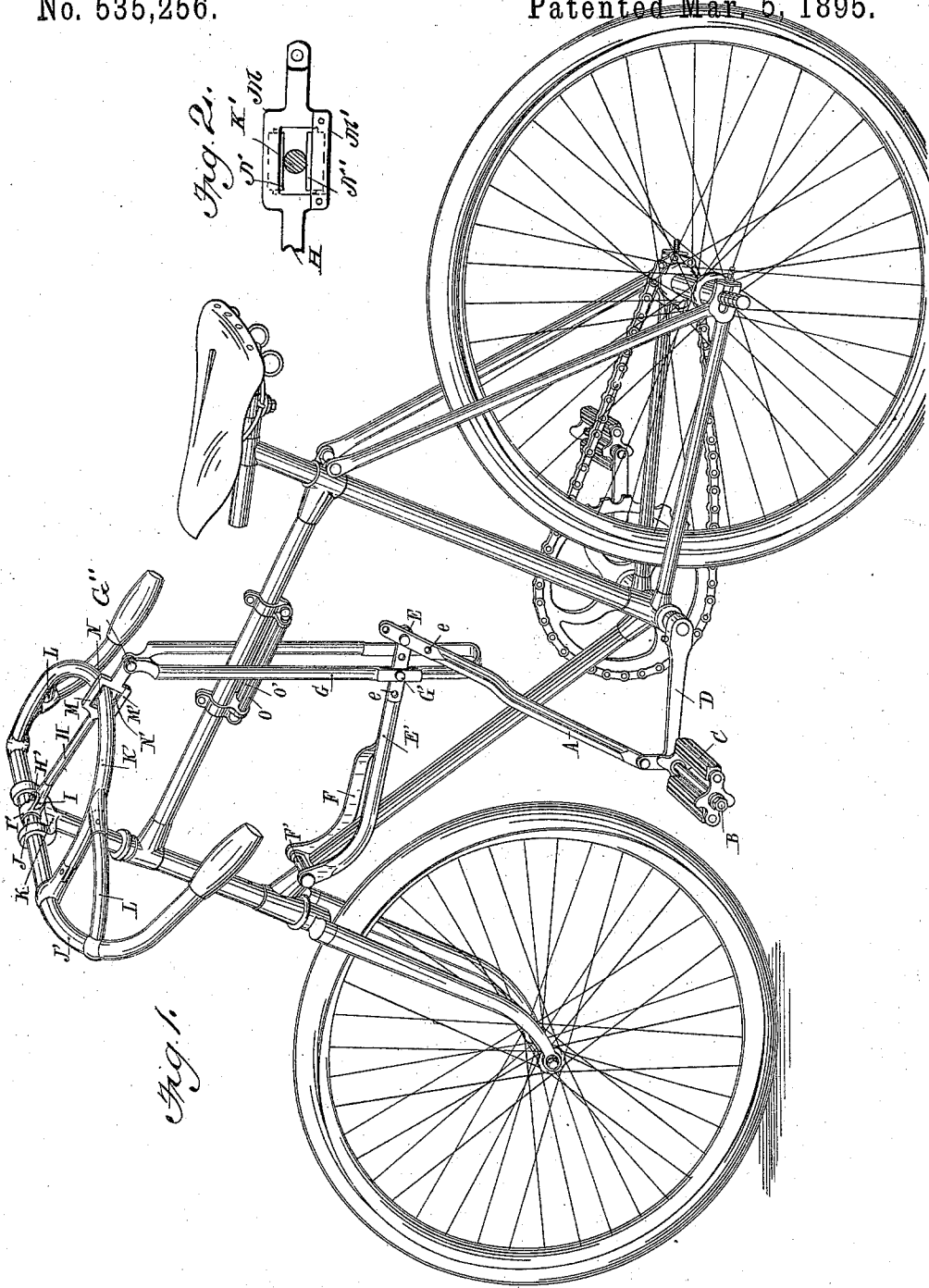


(No Model.)

J. MARTY.  
DRIVING MECHANISM FOR VELOCIPEDES.

No. 535,256.

Patented Mar. 5, 1895.



Witnesses,  
*Almy Sutcliffe*  
E. H. Rea

Inventor,  
*Jean Marty,*  
By *James S. Norris,*  
Atty.

# UNITED STATES PATENT OFFICE.

JEAN MARTY, OF PARIS, FRANCE.

## DRIVING MECHANISM FOR VELOCIPEDES.

SPECIFICATION forming part of Letters Patent No. 535,256, dated March 5, 1895.

Application filed October 22, 1894. Serial No. 526,635. (No model.) Patented in France April 12, 1894, No. 237,717.

To all whom it may concern:

Be it known that I, JEAN MARTY, mechanical engineer, a citizen of the Republic of France, residing at Paris, France, have invented an Improved Driving Mechanism for Velocipedes, (for which I have obtained a patent in France, No. 237,717, dated April 12, 1894,) of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to a driving-mechanism for velocipedes, which is designed to be operated by the hands and to act upon the pedals so as to considerably augment the power produced by the action of the legs in the ordinary manner.

I will proceed to describe the arrangement of this driving-mechanism with reference to the accompanying drawings in which I have shown by way of example how the said mechanism may be applied to a bicycle.

Figure 1 is a view of a bicycle having its driving mechanism constructed according to my invention. Fig. 2 is an enlarged detail view of the frame M with its rollers and movable side.

A connecting rod A, whose lower extremity is united by a joint to the axis B of one of the pedals C between the rear surface of the said pedal and the front surface of the crank D, is at its upper extremity united by a joint to the extremity E of a lever E' whose other extremity forming a fork F gives passage to the lower tube of the frame of the machine upon which the said fork F is mounted by a joint F'.

A link G having two branches, between which passes the upper tube of the frame of the machine, is connected by joints near its lower extremity G' to the said lever E' and at its upper extremity G'' to another lever H. Holes e provided in the lever E' and aforesaid connecting rod A, enable the position of the points of articulation of these levers and of that of the link G to be varied according to requirements. The extremity of the lever H opposite the joint G'' is likewise mounted by a joint H' in the fork I of a sleeve I' arranged and turning freely upon the middle part J of the handle bar J' mounted so as to be maintained and to be able to oscillate in the lugs of a small fork K at the head of the front fork.

The handle bar J is provided interiorly with a branch made in the form of an arc of a circle K', which is adapted to be dismantled and the fixing of which to the said handle bar J' is

completed and consolidated by other branches L arranged on each side. This arc K' traverses a small frame M formed upon the lever H and one of the sides M' of which can be removed so as to permit of the disengagement of the said arc K' in case it is to be dismantled for repair or for any other purpose. Small rollers N N' arranged in the said small frame M above and below the arc K' form during the operation of the system supports or bearings for the said arc K' thus annulling the friction or at least diminishing it considerably. In like manner small rollers O O' arranged on each side of the upper tube of the frame of the machine serve as guides for the said link whose branches bear upon the rollers O O'.

The operation of the system will be readily understood.

While acting as usual with the feet upon the pedals C I act with the hands upon the handle bar J', which latter is caused to oscillate vertically, the proper steering being insured at the same time in the ordinary manner. In this oscillating movement participates the arc K' and consequently the lever H, the link G, the lever E' and the connecting rod A, the latter acting upon the pedals C. The power thus produced by the arms is added to that produced by the legs, so that the work on the pedals will be considerably augmented.

What I claim is—

A driving mechanism for velocipedes, operated by the arms and acting upon the pedals to augment the work done by the legs, which comprises a handle-bar adapted to be turned horizontally for the steering as usual, but also in the vertical direction, the said handle-bar being provided interiorly with a branch forming an arc of a circle traversing the frame of a lever capable of being turned vertically and horizontally by one of its extremities upon the middle part of the handle-bar and operating by its other extremity a link, lever and rod for transmitting to the pedals the work done by the handle-bar with the aid of the arms so as to add the said work to that done by the legs, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of the two subscribing witnesses.

JEAN MARTY.

Witnesses:

L. HILLIGER,  
CLYDE SHROPSHIRE,