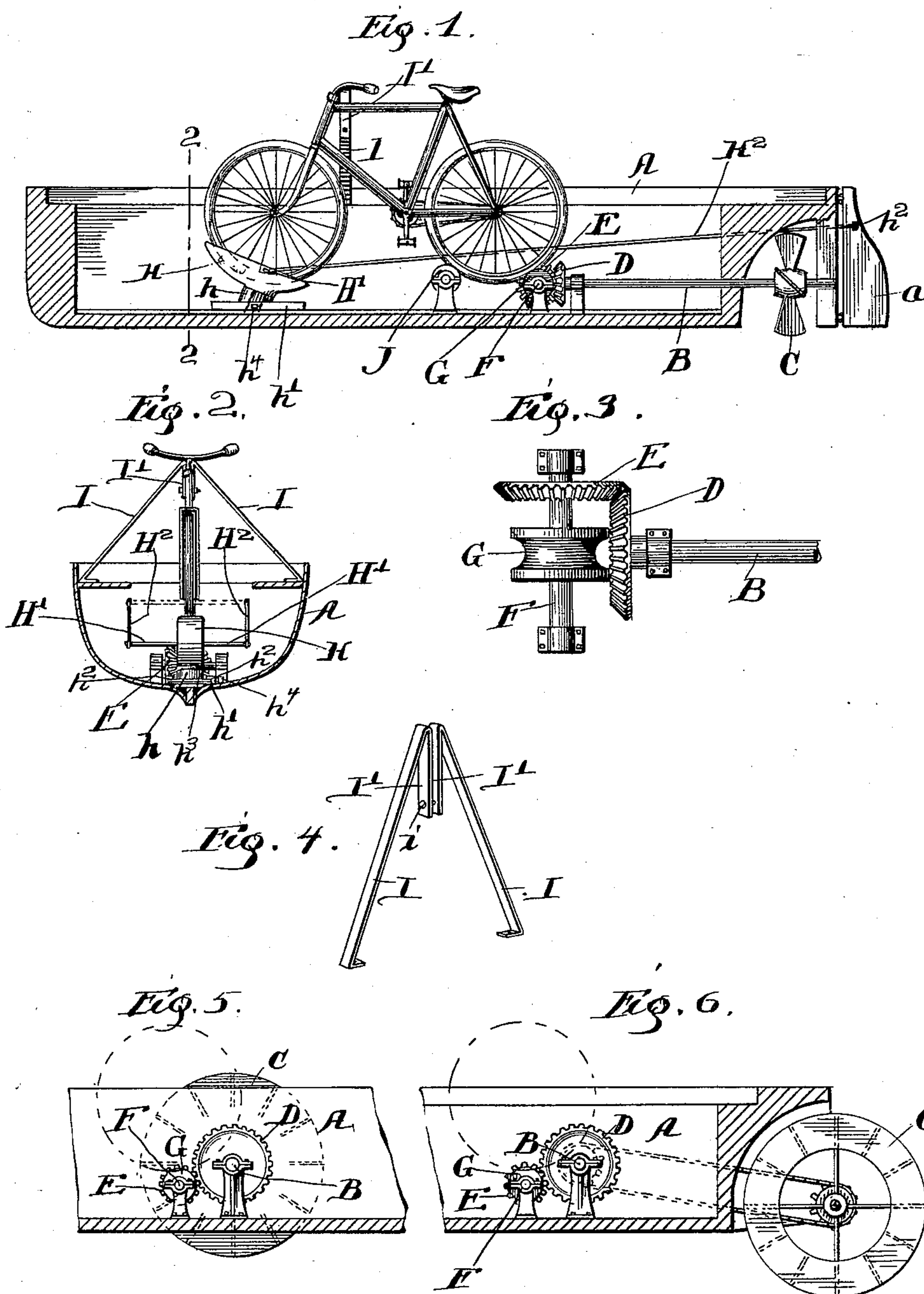


B. H. BRAZELTON.
BICYCLE PROPELLED BOAT.

No. 587,074.

Patented July 27, 1897.



Witnesses:
Chas. O. Shervey
W. L. Shahan

Inventor:
Bird H. Brazelton
by Miles G. Gurnee & Pitman
His Attys

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Fig. 7.

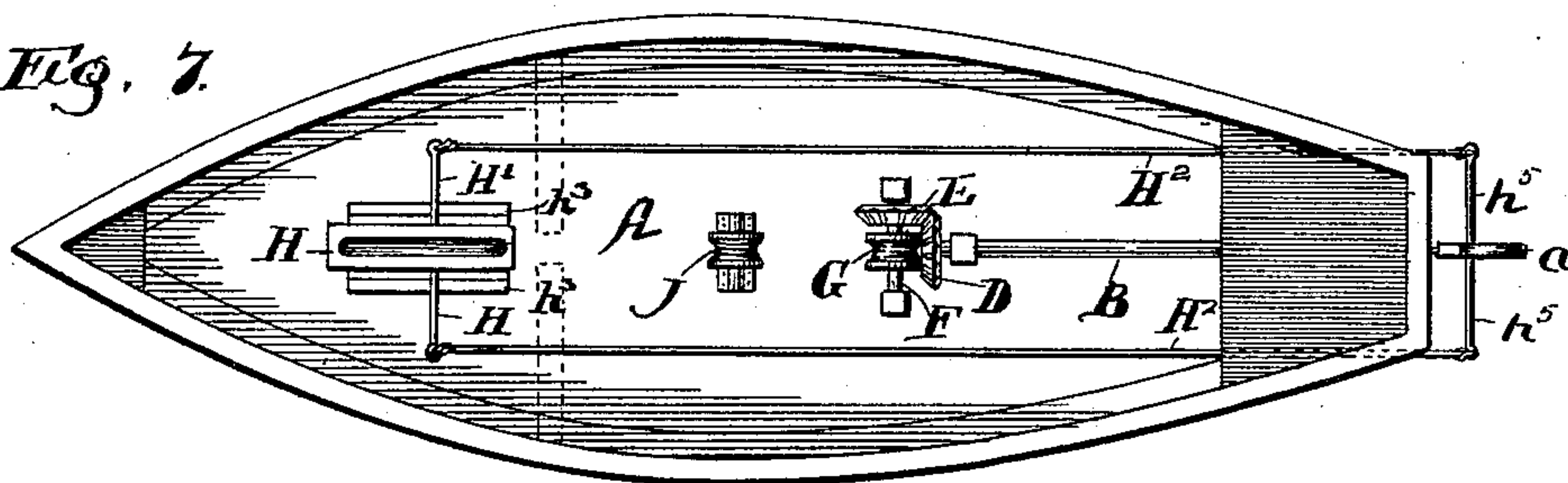


Fig. 8.

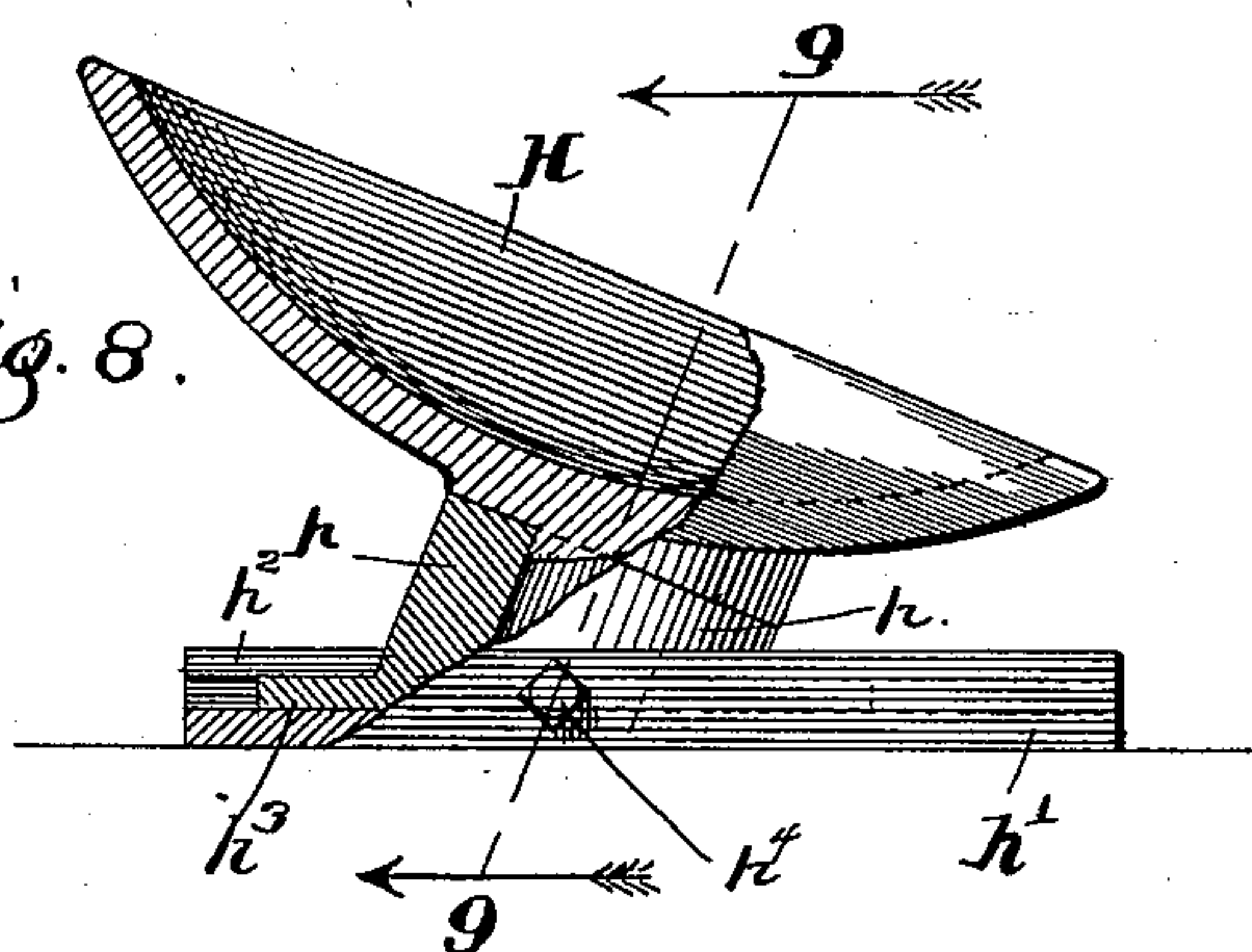
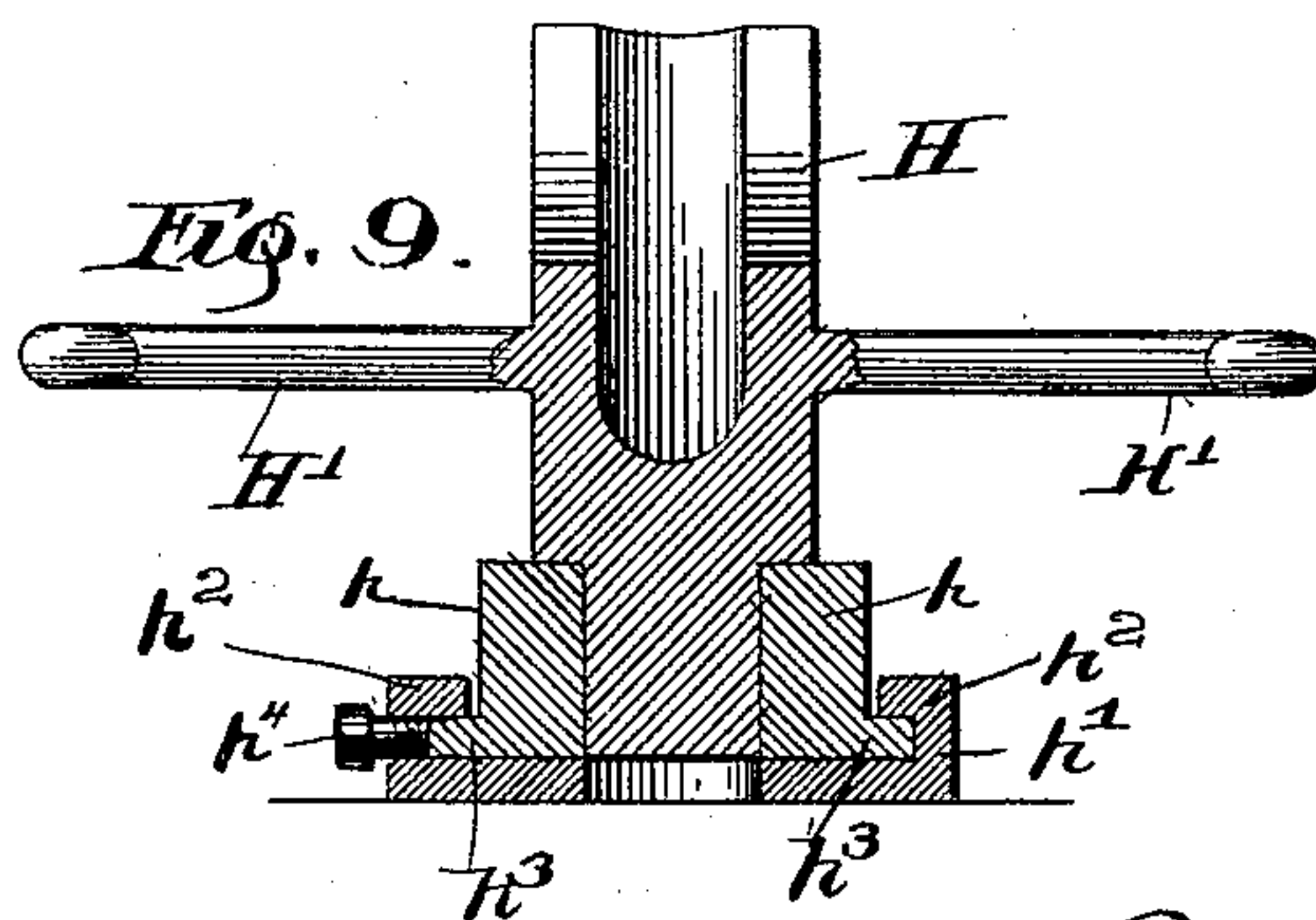


Fig. 9.



Witnesses:

Chas. O. Hurvey.
W. L. Sheahan.

Inventor:

Bird H. Brazelton
by Niles G. Smith
Attys

UNITED STATES PATENT OFFICE.

BIRD H. BRAZELTON, OF CHICAGO, ILLINOIS.

BICYCLE-PROPELLED BOAT.

SPECIFICATION forming part of Letters Patent No. 587,074, dated July 27, 1897.

Application filed August 3, 1896. Serial No 601,468. (No model.)

To all whom it may concern:

Be it known that I, BIRD H. BRAZELTON, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bicycle-Propelled Boats, of which the following is a specification.

My invention relates to certain improvements in bicycle-propelled boats; and to such end it consists in providing an ordinary boat with suitable propelling mechanism adapted through certain interposed gearing to be driven by an ordinary bicycle, no alteration of the bicycle being necessary.

The invention is fully illustrated in the specification and shown in the accompanying drawings, in which—

Figure 1 is a central vertical section of my improved boat and showing an ordinary safety-bicycle in working relation therewith. Fig. 2 is a cross-section in line 2 2, Fig. 1. Fig. 3 is a top plan of the gearing used in connection with my improved boat. Fig. 4 is a detail perspective view of a frame adapted to hold the bicycle in proper working relation to the gearing. Figs. 5 and 6 are central vertical sections of slight modifications. Fig. 7 is a plan view of a boat and showing the steering apparatus therefor. Fig. 8 is a view partly in side elevation and partly broken away to show construction of a shoe used in connection with the steering apparatus, and Fig. 9 is a cross-section through the line 9 9, Fig. 8.

Referring to the drawings, A represents an ordinary boat provided with the usual rudder *a*. Near the bottom of the boat is journaled a longitudinally-extending propeller-shaft B, provided near its end with a propeller C of proper proportions to propel the boat when rotated at a sufficient speed. The opposite end of the shaft B is provided with a miter-gear D, in mesh with a similar gear E, mounted upon a transversely-extending shaft F, which is journaled in suitable bearings secured to the boat. A friction-roller G is rigidly mounted upon the shaft F in line with the shaft B, this roller being preferably grooved, as seen in Fig. 3, and adapted to support the driven wheel of a bicycle.

At a proper distance from the grooved friction-roller G is a shoe H, adapted to receive

the front wheel of a bicycle, this shoe being pivoted in a longitudinally-adjustable block *h* and the pivot being in line with the pivoted steering-head of the bicycle. A guide *h'* is secured to the lower portion of the boat, this guide being formed with overhanging lips *h*², (see Figs. 2, 8, and 9,) between which slides the plate *h*³, upon which the block *h* is formed. A set-screw *h*⁴ is provided upon the guide, so that the plate *h*³ may be slid along the guide to the proper point and then retained in place by the set-screw. Inasmuch as a great variety of wheels is possible, I have made the shoe H longitudinally adjustable in order to accommodate different lengths of bicycles. Two arms H' H' extend from the shoe and are connected with the rudder by means of a pair of ropes H². It is evident that, inasmuch as the front wheel rests in the shoe H, the boat may be properly guided by simply turning the handle-bars of the bicycle, thereby operating the rudder through the ropes H².

In order to properly support the bicycle and prevent any lateral movement thereof, I have provided a frame for this purpose, which consists in two diagonal members I I, extending from the sides of the boat to the center thereof at a point about the height of the horizontal member of a bicycle, where they are bent downward into two vertically-extending parallel portions I' I'. As seen in Figs. 1 and 2, the upper or horizontal member of a bicycle is held between the portions I' I' of the frame, a bolt *i* being preferably put through the ends thereof, as seen in Fig. 4, thereby clamping the bicycle firmly in the framework.

When it is desired to operate this boat, an ordinary bicycle is employed, no change thereof being necessary. The bicycle is simply placed between the members I' I' of the supporting-frame, the front wheel resting in the shoe H and the rear wheel upon the friction-roller G. It is obvious that when the weight of the rider is upon the rear wheel the friction between the same and the friction-roller is sufficient to cause rotation of the roller when the rear wheel is rotated by the rider. I have shown an idler J journaled a short distance from the friction-roller, which may assist in supporting the rear wheel, but I find that the rear wheel may be supported wholly upon the grooved roller, if desired.

The modification in Fig. 5 shows a boat provided with side-wheel propellers, and in this case the propeller-shaft B is geared to the friction-roller shaft F, a spur-gear D being rigidly mounted upon the propeller-shaft and a pinion E upon the friction-roller shaft. In Fig. 6 a stern-wheel is shown, the same being connected with the shaft B by means of sprockets and a chain, the gearing being similar to that shown in Fig. 5.

From the above it will be clearly seen that the device is extremely simple and can be operated by any of the ordinary bicycles, the great advantage being that no alteration of the bicycle is necessary, but is simply placed in position and the boat is ready for operation.

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

1. The combination with a boat and propeller, of two rollers adapted to support the driven wheel of a bicycle, one of said rollers being an idler and the other connected with the propeller, the frame I, secured to the sides of the boat and extending toward the forward end of a bicycle and having the vertically-extending portions I', I', adapted to embrace

one of the members of the frame of the bicycle, and the clamping-bolt i, adapted to clamp the members I', I', upon the frame of the bicycle.

2. The combination with a boat, of a propeller adapted to receive its motion from the driven wheel of a bicycle, a shoe H, adapted to receive the steering-wheel of a bicycle and pivoted in line with the steering-head of the bicycle, the guide h', adapted to support the shoe H, said shoe being longitudinally movable in said guide, and suitable means for holding it in any desired position therein.

3. The combination with a boat and propeller adapted to receive its motion from the driven wheel of a bicycle, of the shoe H, adapted to receive the steering-wheel of a bicycle, the plate h³, having the block h, a guide h', the plate being longitudinally movable in the guide, the set-screw h⁴, adapted to hold the plate at any desired position, the shoe H, being pivoted in the block in line with the steering-head of the bicycle.

BIRD H. BRAZELTON.

Witnesses:

CHAS. O. SHERVEY,

M. L. SHEAHAN.