

No. 891,093.

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F. S. PARSONS & W. F. KELLEY.

PROPELLER.

APPLICATION FILED FEB. 1, 1908.

Fig. 1.

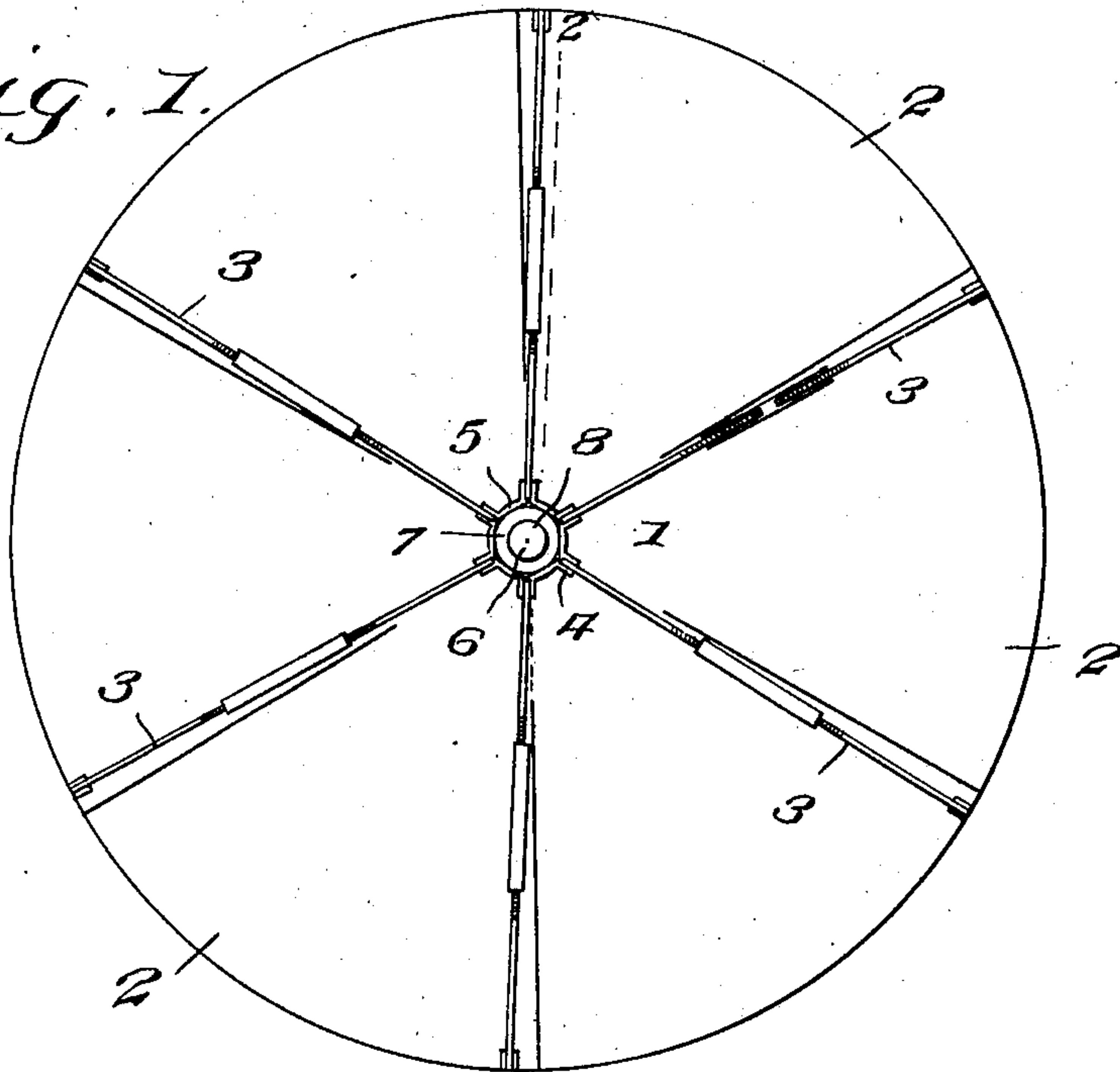
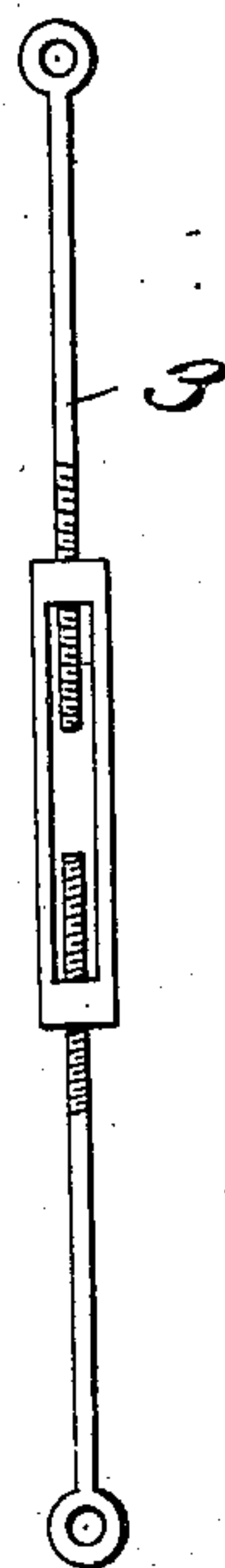
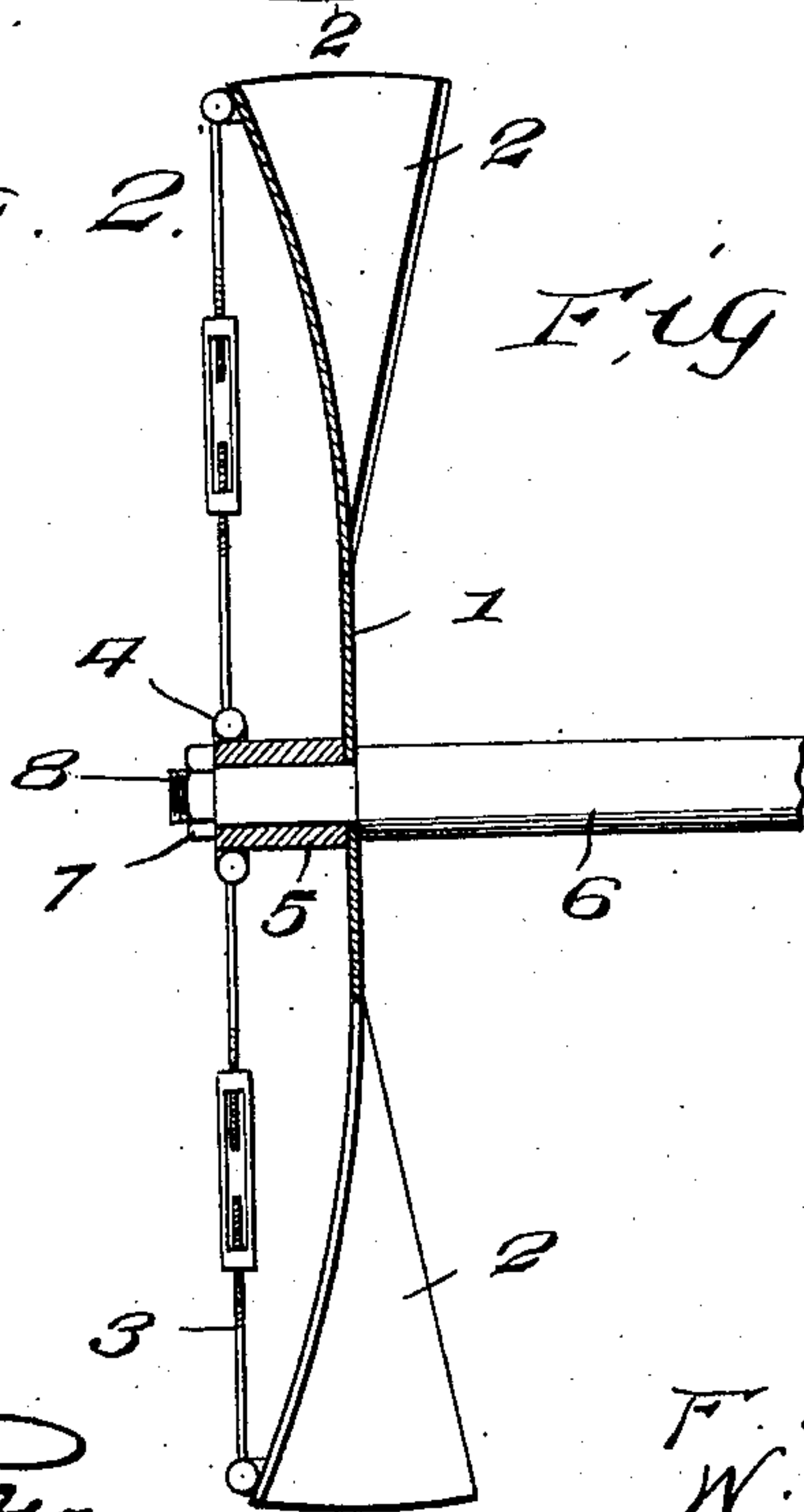
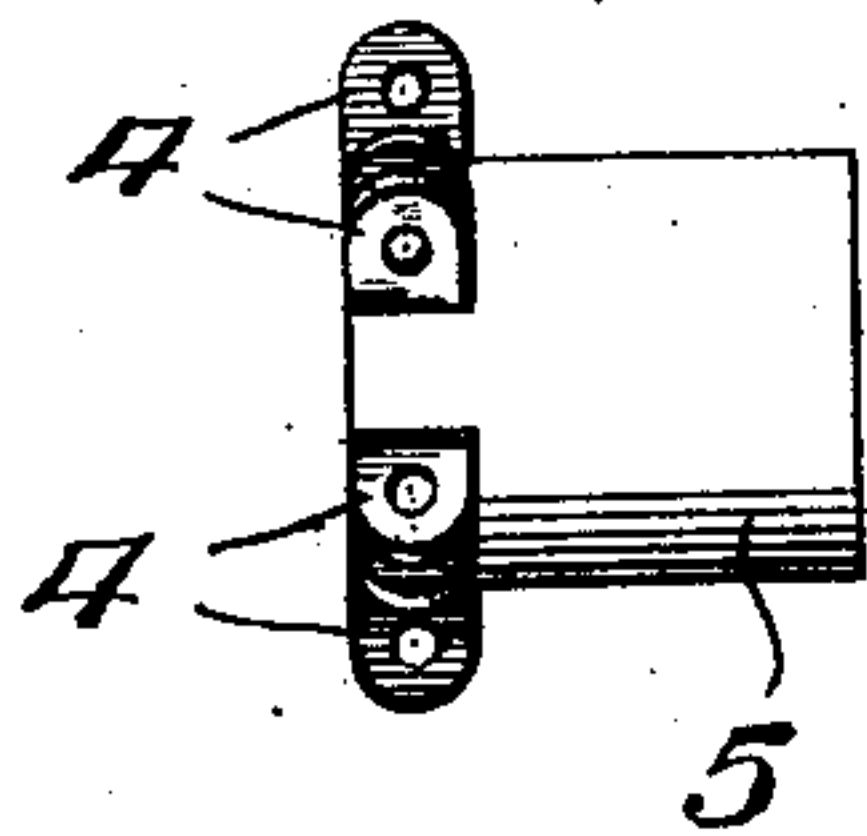


Fig. 2.

Fig. 3.

Fig. 4.



WITNESSES:

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PROPELLER.

No. 891,093.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, FRANK S. PARSONS and WILLIAM F. KELLEY, citizens of the United States, residing at Rock Elm, in the county of Pierce and State of Wisconsin, have invented certain new and useful Improvements in Propellers; and we 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.

Our invention relates to new and useful improvements in propellers and more particularly to that class adapted to be used for propelling boats or similar water craft and our object is to provide the propeller with a plurality of blades and construct the propeller from a single section of material and a further object is to provide means for increasing or decreasing the curvature of the blades, whereby the propelling properties of the propeller will be correspondingly increased or decreased.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 is an elevation of our improved propeller complete. Fig. 2 is a sectional view thereof, as seen on line 2—2, Fig. 1. Fig. 3 is an elevation of a turn buckle employed for increasing or decreasing the curvature of the blades. Fig. 4 is an elevation of a collar employed for securing the lower ends of the turn buckles.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the body of our improved propeller, which is preferably constructed from a circular plate of metal, such as sheet steel and said propeller is provided with a plurality of blades 2 formed by making incisions through the body of the propeller and extending inwardly from the outer edge thereof.

In constructing the propeller so as to cause the blades to gather the water and force the boat through the water, the severed edges of the blades are bent outwardly and in opposite directions and in order to increase or de-

crease the propelling qualities of the blades, we provide turn buckles 3, the outer ends of which are pivotally secured adjacent the peripheral edges of the blades and at the severed edge thereof, while the opposite ends of the turn buckles are secured between ears 4 carried by a collar 5 and it will be readily seen that when the turn buckle is operated to shorten the length thereof, the edge of the blades to which the turn buckles are secured, will be given greater curvature and, thereby, increase the driving qualities of the blades.

The propeller 1 and collar 5 are secured to the usual form of driving shaft 6, said propeller and collar being fixed to the shaft in any preferred manner and held in position thereon by means of a nut 7 engaging the reduced threaded end 8 of the driving shaft 6 and, while we have shown the turn buckles as in use upon but one side of the propeller, it will be readily understood that similar turn buckles may be placed at the opposite side of the propeller and secured to opposite edges of the blades, thereby enabling us to increase the curvature of the blades at both sides of the propeller.

It will thus be seen that we have provided a very cheap and economical form of propeller and one that can be constructed from thin metal such as blades of circular saws, or similar devices.

It will further be seen that by providing our adjusting means, the curvature of the blades of said propeller may be readily increased or decreased, thereby increasing or decreasing the speed of the boat to which the propeller is attached without changing the power or speed of the motor employed for driving the propeller.

What we claim is:

1. The herein described propeller, comprising a body portion, a plurality of blades formed by making incisions in said body portion, the meeting edges of said blades being bent in opposite directions and turn buckles adapted to increase or decrease the curvature of the bent portions of said blades.

2. In a propeller of the class described, the combination with a driving shaft; of a propeller fixed to said shaft, blades on said

propeller, the meeting edges of which are oppositely curved, turn buckles secured at one end to said curved edges of the blades, a collar fixed to said driving shaft, means to
5 secure the inner ends of the turn buckle to the collar and additional means to secure the collar and propeller on the driving shaft.
In testimony whereof we have signed our

names to this specification in the presence of two subscribing witnesses.

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FRANK S. PARSONS.
WILLIAM F. KELLEY

Witnesses:

A. O. BALFANZ,
J. W. CONDIT.