

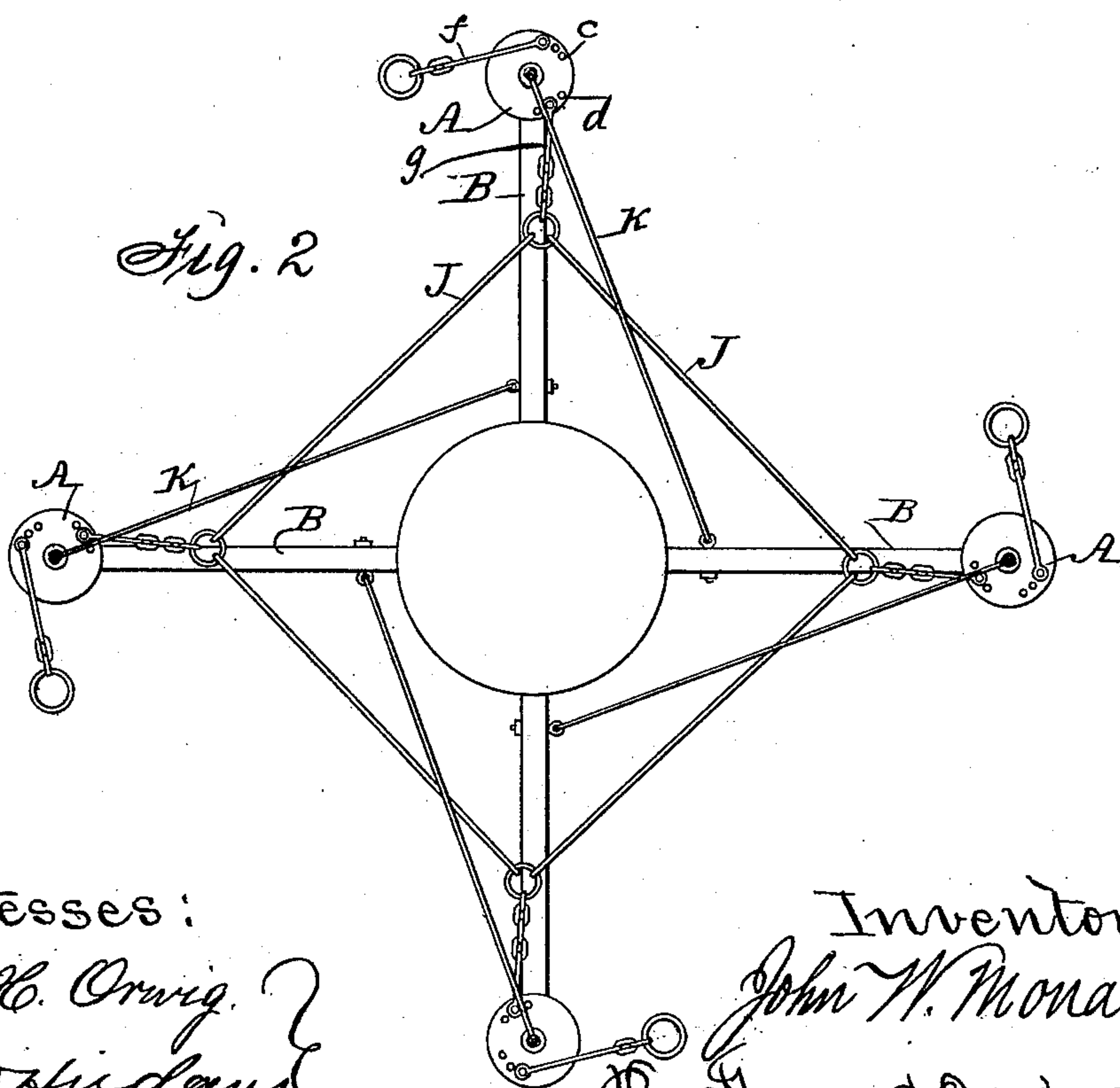
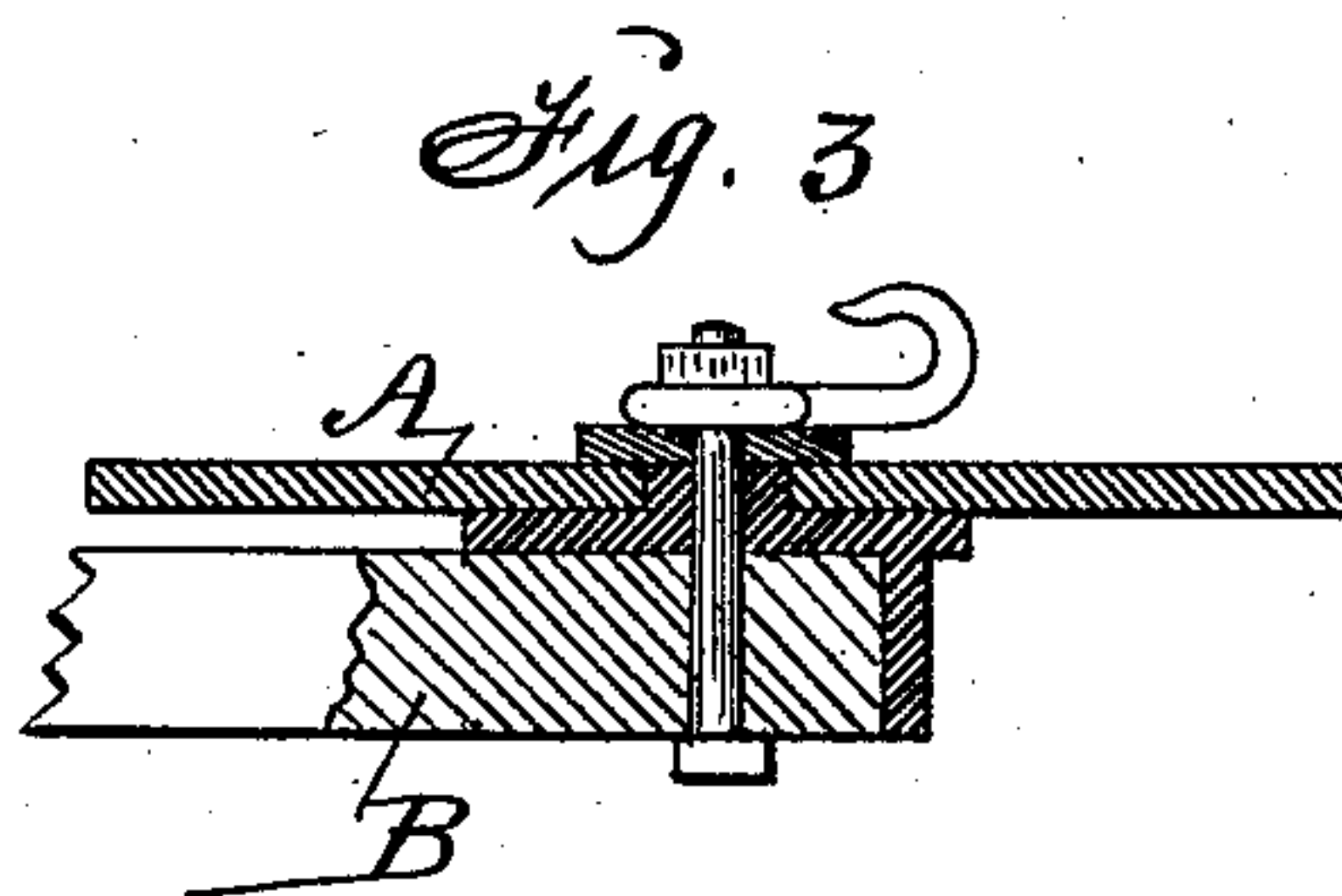
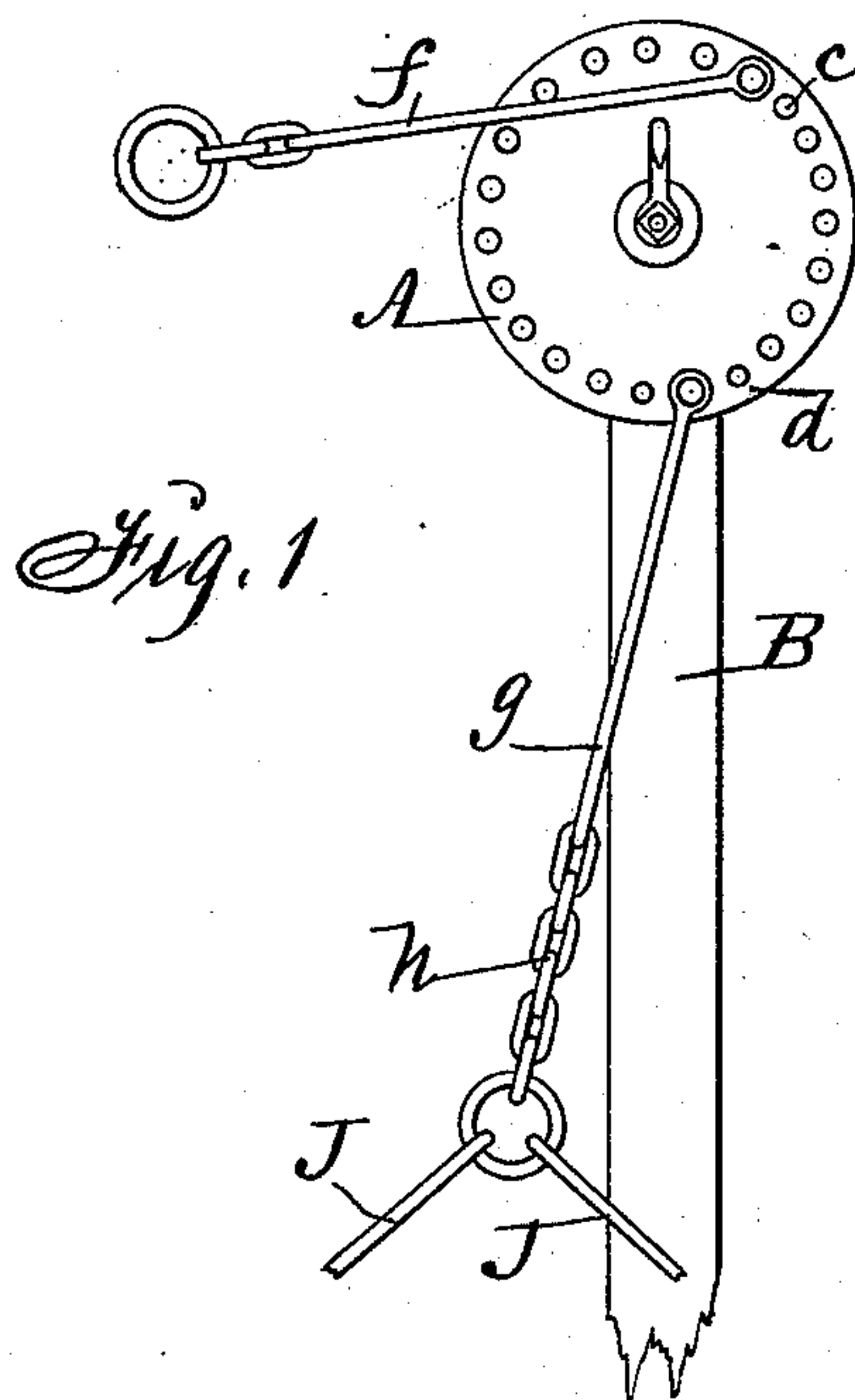
(No Model.)

J. W. MONARCH.

EQUALIZER FOR HORSE POWERS.

No. 362,585.

Patented May 10, 1887.



Witnesses:

R. H. Orwig.
C. D. Hildgand.

Inventor:

John W. Monarch,

By Thomas G. Orwig, Att'y.

UNITED STATES PATENT OFFICE.

JOHN W. MONARCH, OF DES MOINES, IOWA, ASSIGNOR OF ONE-HALF TO
ALBERADE MATHIS, OF SAME PLACE.

EQUALIZER FOR HORSE-POWERS.

SPECIFICATION forming part of Letters Patent No. 362,585, dated May 10, 1887.

Application filed August 10, 1886. Serial No. 210,500. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. MONARCH, a citizen of the United States of America, and a resident of Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Improvement in Equalizers for Horse-Powers, of which the following is a specification.

Heretofore single-trees or straight levers have been pivoted to the ends of the sweeps or radial arms of a horse-power by means of bearers that projected diagonally from the ends of the arms, and the inner ends of the levers connected with each other by means of rods. To thus apply the straight levers, the ends of the arms were cut off diagonally and left exposed, so that horses were liable to get injured by coming in contact with the pointed ends of the arms and the outer free ends of the single-trees or straight levers pivoted to the arms.

My improvement consists in combining metal disks with the square ends of the arms by means of plates having bosses upon which the disks can revolve, and at the same time cover and protect the ends of the arms, and in connecting the disks with each other by means of adjustable clevises and rods, as hereinafter set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which—

Figure 1 is a top view of one of the disks applied to the end of an arm; Fig. 2, a top view of the complete equalizer combined with a horse-power; and Fig. 3, an enlarged sectional view of the metal plate having a boss, the end of a wooden arm, and a metal disk pivoted to the metal plate.

The metal plates having bosses projecting upward are permanently fixed to the ends of the arms by means of bolts to re-enforce and protect the wood and to form bearings for the metal disks A, that have central perforations through which the bosses project, and through which bolts are passed, and secured by means of nuts, as clearly shown in Fig. 3.

Clevises *f* and *g* are adjustably connected with the disks that have perforations *c* and *d* near their circumferences, in a common way, and the clevises *g* are all connected with each other by means of rods J in such a manner that rotary motion of any one disk will be transmitted and distributed to all the other disks.

K are braces extending from the central portion of one arm to the end of another arm.

In practical use horses are hitched to the clevises *f*, and whenever the force applied to any one of these clevises is less than that applied to the others, respectively, then the disks A will revolve upon the ends of the arms B, and take up the slack, as required, to prevent any of the horses from being favored.

I claim as my invention—

The combination of the disks A, clevises *f* and *g*, and rods J with the radial arms of a horse-power, having metal plates provided with bosses fixed to their ends, substantially as shown and described, for the purposes stated.

JOHN W. MONARCH.

Witnesses:

ALBERADE MATHIS,
EMILE CHAVANNES,
FRANK. MATHIS.