

(No Model.)

B. CARNAN.
CRANK WHEEL.

No. 443,931.

Patented Dec. 30, 1890.

Fig. 1.

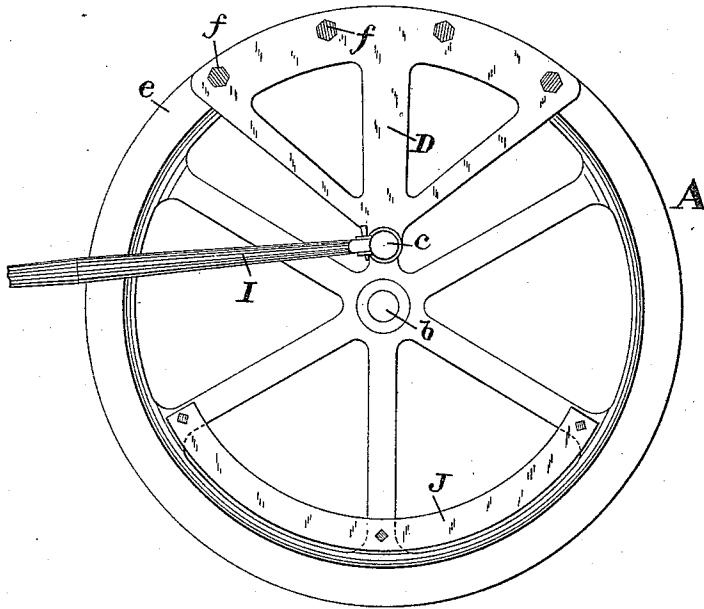


Fig. 2.

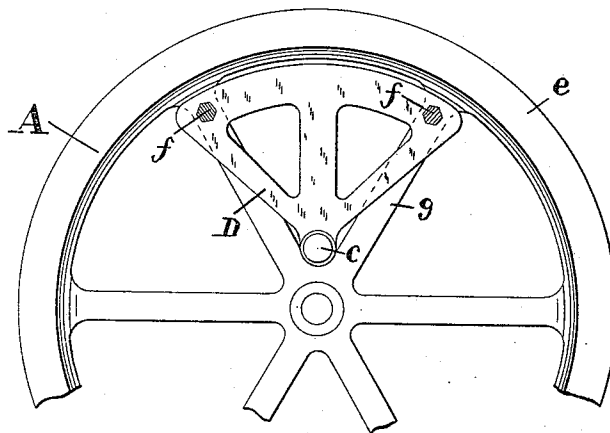
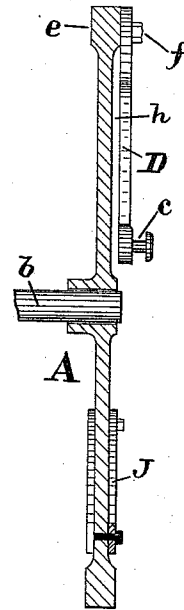


Fig. 3.

WITNESSES:

Otto H. Ehlers.
A. O. Rabendriev

INVENTOR:

Bishop Carnan

BY Chas B. Mann
ATTORNEY.

UNITED STATES PATENT OFFICE.

BISHOP CARNAN, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO
C. WALTER CARNAN, OF SAME PLACE.

CRANK-WHEEL.

SPECIFICATION forming part of Letters Patent No. 443,931, dated December 30, 1890.

Application filed September 30, 1890. Serial No. 366,645. (No model.)

To all whom it may concern:

Be it known that I, BISHOP CARNAN, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Crank-Wheels, of which the following is a specification.

This invention relates to an improvement in attaching the crank-pin or crank-wrist to wheels.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a crank-wheel with my improvement and a connecting-rod attached to the crank-wrist. Fig. 2 is a sectional view of the crank-wheel and showing the improvement. Fig. 3 is a side view of part of a wheel, showing a modification.

Crank-wheels ordinarily have the pin or wrist attached to the web or to the spoke near the hub; but in my improvement the pin is attached to a suitable plate, which in turn is bolted to the wheel at or near its rim.

The letter A designates a wheel; *b*, the shaft on which it is mounted; *c*, the wrist or pin, and D a plate to which the said wrist is attached. This plate is secured to the wheel at its rim *e* by means of bolts *f*, as in Figs. 1 and 2, or instead of securing it directly to the rim the said plate may be bolted to the spokes *g* near the rim, as shown in Fig. 3.

It will be observed that a space *h* is left

between the plate D which has the crank-wrist *c* and the face of the wheel; but while the crank-wrist is attached to the plate D, it has or may have the same relative position with respect to the center or axis of the wheel-shaft *b* as it would have if attached directly to the wheel-face. This construction and arrangement for the wrist-pin afford a superior connection for the rod I. Any slight deviation from true alignment of the plane of the crank-wheel and the piston-rod or connecting-rod will not be productive of any disadvantage and the driving-leverage of the connecting-rod will be better.

The wheel is provided at a point diametrically opposite the plate D with a weight J, which balances the wheel.

Having described my invention, I claim—

A crank-wheel having a plate D rigidly secured thereto by bolts *f* at or near the wheel-rim, thereby being immovable with respect to the wheel, said plate projecting toward the hub of the wheel, with a space between the plate and face of the wheel, and a wrist or pin attached to said plate.

In testimony whereof I affix my signature in the presence of two witnesses.

BISHOP CARNAN.

Witnesses:

A. O. BABENDREIER,
JNO. T. MADDIX.