

(No Model.)

A. WALTON.

PULLEY.

No. 282,422.

Patented July 31, 1883.

FIG. 1.

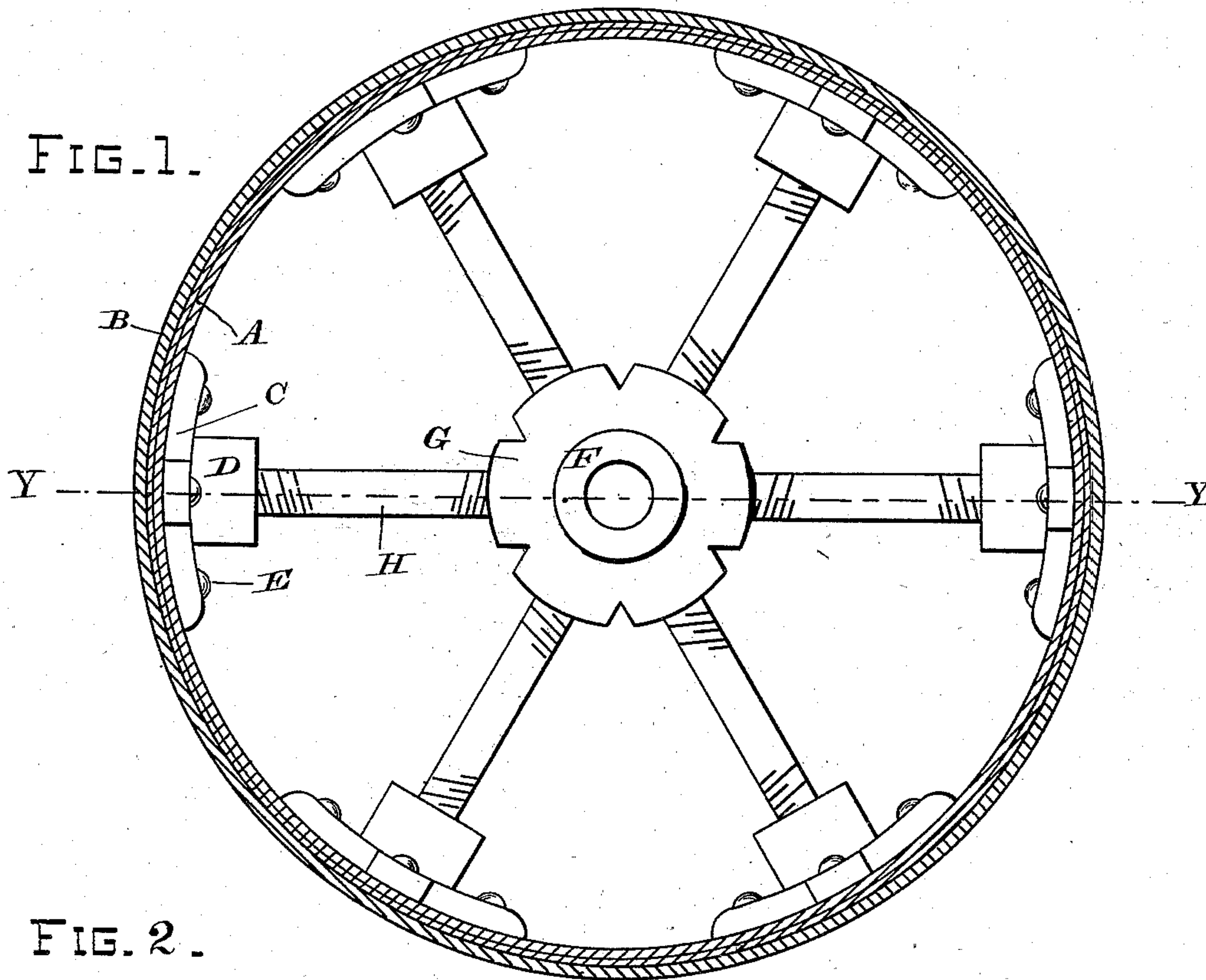
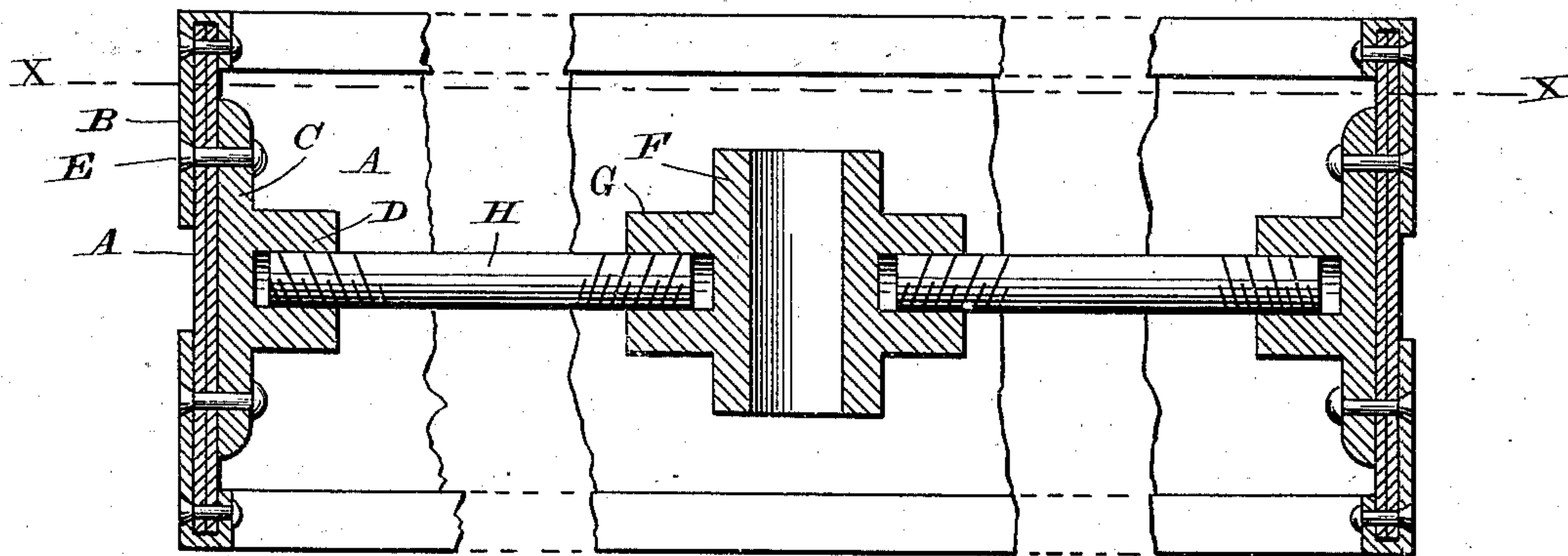


FIG. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

AUGUSTUS WALTON, OF SAN FRANCISCO, CALIFORNIA.

PULLEY.

SPECIFICATION forming part of Letters Patent No. 282,422, dated July 31, 1883.

Application filed April 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS WALTON, residing at San Francisco, in the county of San Francisco and State of California, have invented a certain new and useful Improvement in Pulleys, of which the following is a specification.

The object of my invention is to provide a composite pulley, or one composed partly of wood and partly of metal, the rim of which is adapted to be supported by extensible spider-arms placed midway between the hub and rim. I accomplish this object by the means illustrated in the accompanying drawings, in which—

Figure 1 is a section of my improved pulley, taken on line X X of Fig. 2. Fig. 2 is a section taken on line Y Y of Fig. 1.

A is the rim of my pulley, which is constructed of wood, of the desired width and thickness, which is first steamed and then bent to form the rim, and the meeting edges brought together.

In case more than one strip or layer of wood is employed the strips are firmly glued together after steaming in the usual way, and the rim may be made in segments, and two segments will answer if found to be more desirable than a continuous rim having but one opening or division; yet I do not wish to confine myself to any particular number of segments.

When the hoop or rim is formed, a thin strip of metal is bent at right angles to form casings B B around both edges of the rim. These casings do not cover the entire surface of the rim—that is to say, their edges do not meet—but a space of one or two inches is left between them on the face side of the pulley, and leaving a portion of the wooden rim exposed. By this means the rim, and particularly the edges thereof, are strengthened and protected from moisture and water when working in a damp location.

In order to confine the meeting ends of the rim together firmly, I employ curved plates C, curved so as to conform to the curvature of the segment or circle of the rim, and they are provided with a tapped boss, D. These holding-plates are also pierced with holes, in which

copper rivets F are placed, passing through the rim, in which position they are headed down smoothly on the outer face of the rim, as shown.

The hub F is of cast metal, and provided with raised bosses G, which are tapped to receive one end of the spider-arms H, which are composed of gas-pipe, while the other end enters the tapped boss upon the plate C. A right and left hand screw-thread is cut on the ends of these arms, which, by turning, loosens or tightens up the rim of the wheel or pulley. By this means it will be seen that the rim of the wheel can always be kept in a true circle and tightly braced from within at all necessary points, as these spider-arms can be placed at suitable intervals around the entire rim.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A pulley-rim constructed of one or more strips of wood bent to a circle and held together at the meeting ends by metal plates and copper rivets, and provided with a suitable number of spider-arms extending from the hub to the inner face of the rim, substantially in the manner as herein set forth and specified.

2. In combination with a pulley provided with a wooden rim, the casings composed of thin strips of metal B, bent at right angles to inclose the edges and a portion of the body of the rim, substantially as set forth, for the purpose specified.

3. In a pulley the rim of which is composed of one or more strips of wood bent in segments, or composed of one continual strip or piece having only two meeting ends, the adjustable spider-arms provided with screw-threads, and adapted to tighten or loosen the pressure upon the rim and strengthen and support the parts thereof, substantially in the manner as herein set forth and specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

AUGUSTUS WALTON. [L. S.]

Witnesses:

C. W. M. SMITH,
CHAS. E. KELLY.