

(No Model.)

J. R. CRAVENS.

HUB.

No. 360,858.

Patented Apr. 12, 1887.

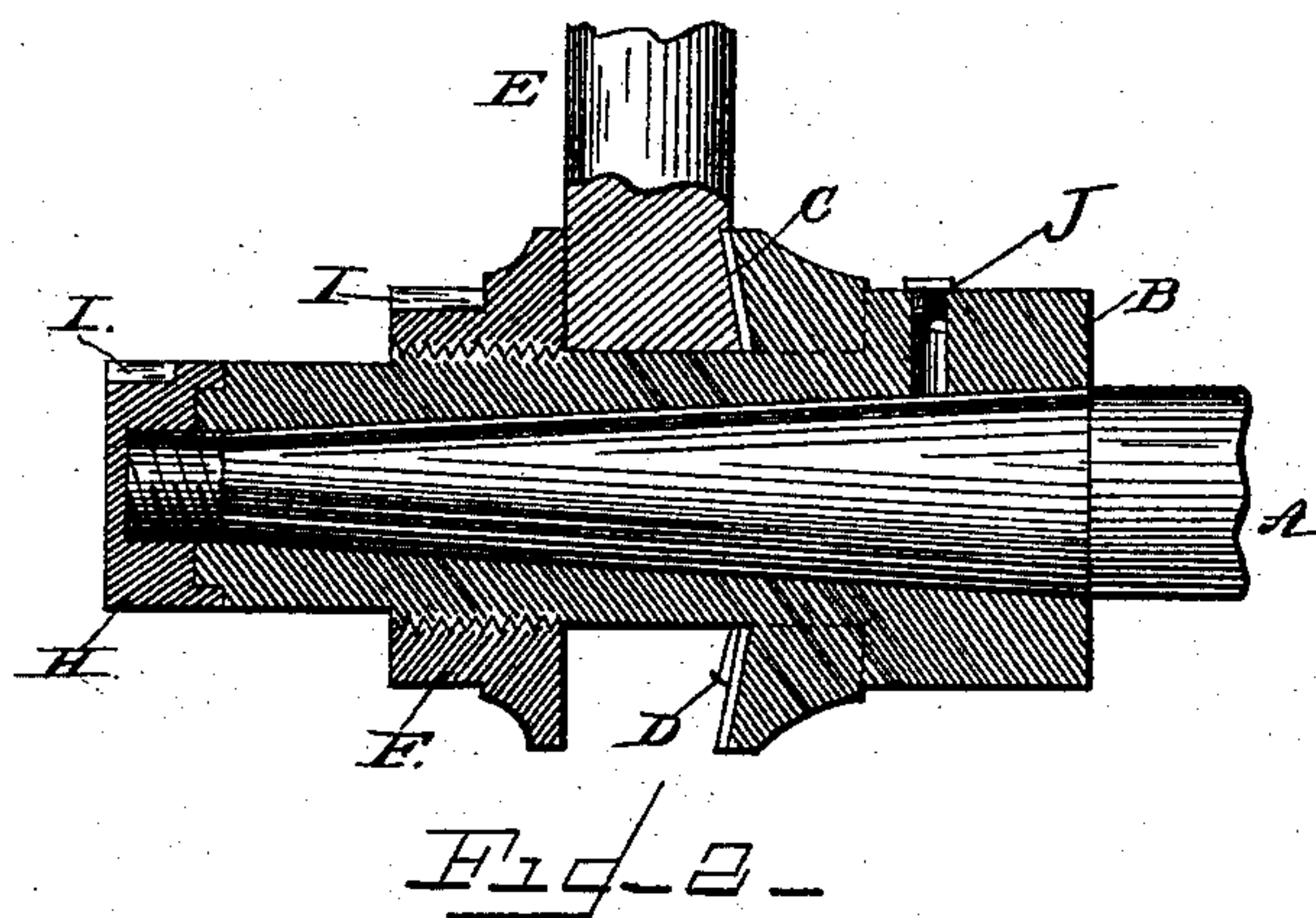
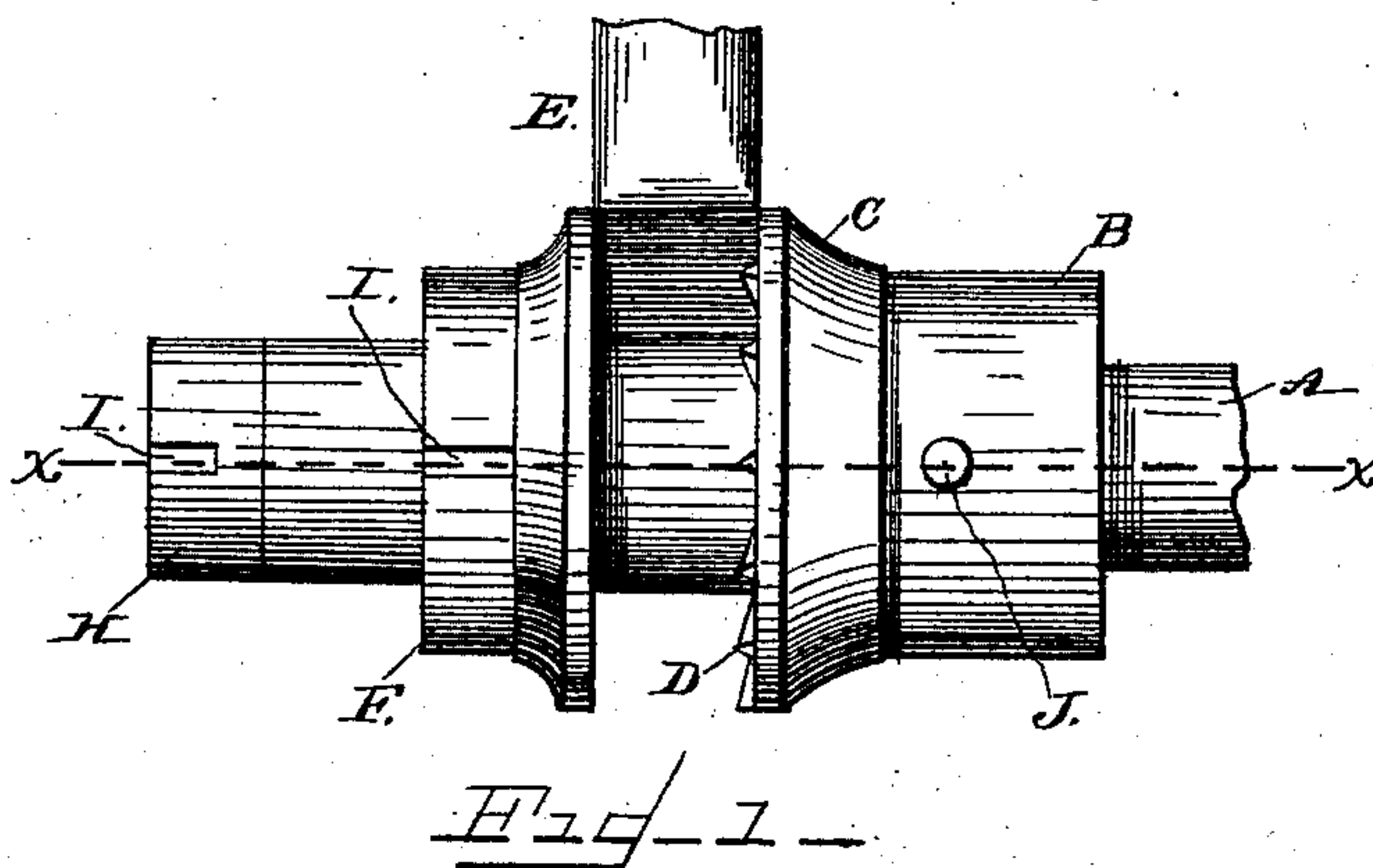
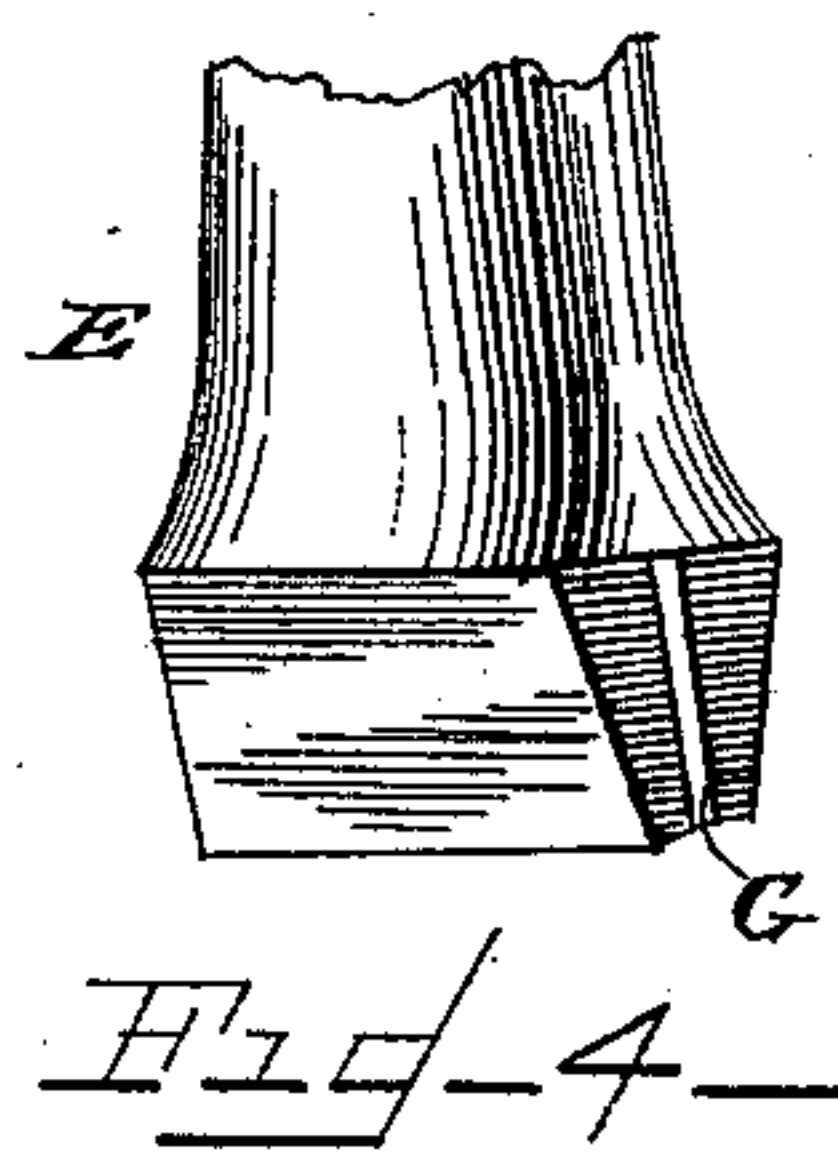
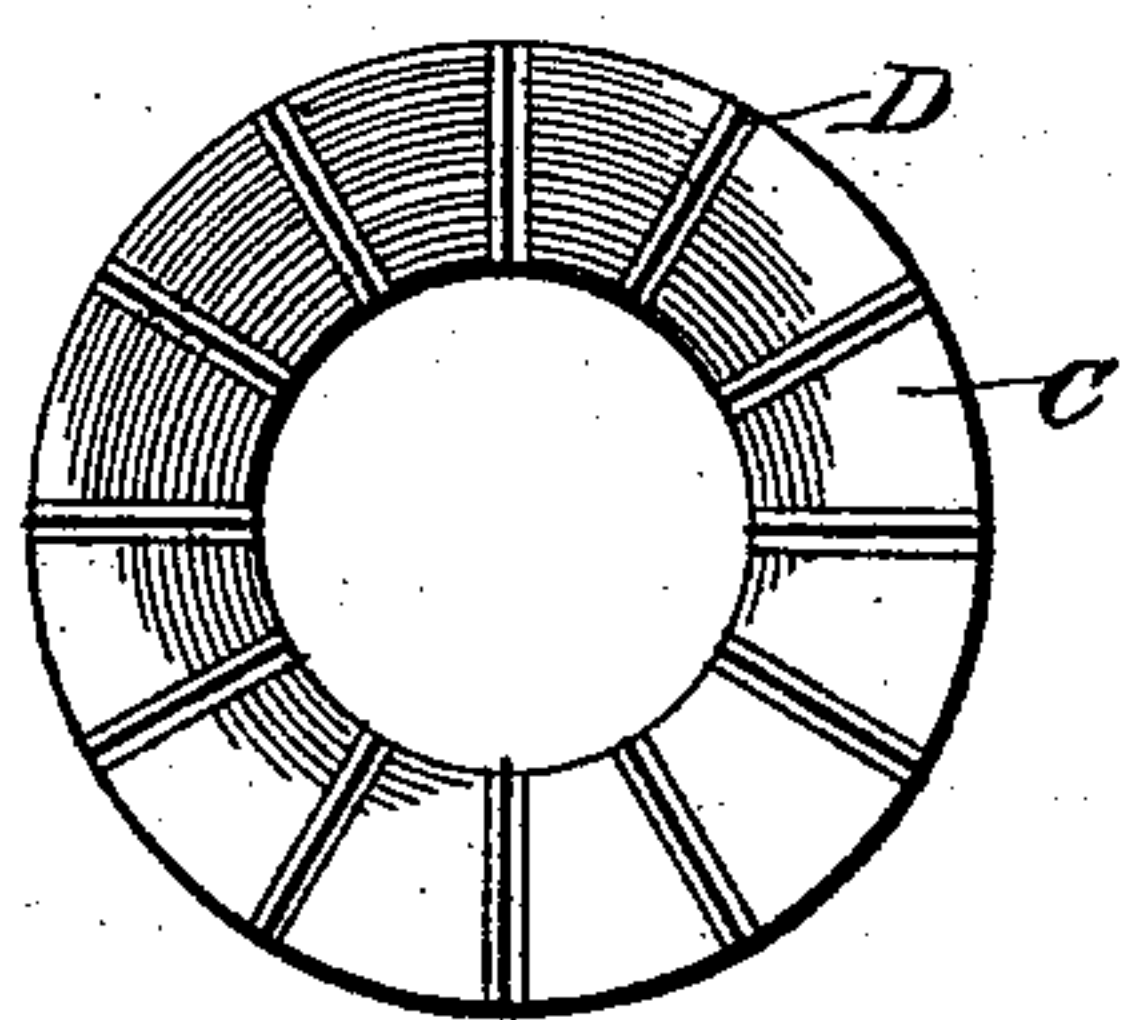


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES REAGIN CRAVENS, OF RINGGOLD, GEORGIA.

HUB.

SPECIFICATION forming part of Letters Patent No. 360,858, dated April 12, 1887.

Application filed November 11, 1886. Serial No. 218,513. (No model.)

To all whom it may concern:

Be it known that I, JAMES REAGIN CRAVENS, a citizen of the United States, residing at Ringgold, in the county of Catoosa and State of Georgia, have invented certain new and useful Improvements in Hubs; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in hubs for carriage and wagon wheels; and it consists in the construction, combination, and arrangement of the several parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is an elevation of my improved hub. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detail view of the spoke-holding disk; and Fig. 4 is a detail perspective view of the end of one of the spokes.

Referring to the drawings by letter, A indicates the spindle or end of the axle, and B the body of the hub. The body B of the hub is provided with a disk, C, which may be cast with and form an integral part of the body, as shown in Figs. 1 and 2, or it may be made separately, as shown in Fig. 3 and indicated by dotted lines, Fig. 2, and secured upon the body. The outer face of this disk C is concave or inclined inward toward the center, and is provided with a series of radial ribs, D, corresponding in number to the spokes E. It will be seen by referring to the drawings that the body B is a straight collar fitted on the spindle A, the inner end of which is of a diameter about equal to the diameter of the disk C, and the rest being of a lesser diameter.

The spokes E are held between the disk C and a flat-faced collar or nut, F, which is screwed up against the spokes over the body B, as shown most clearly in Fig. 2. The ends of the spokes E have their wider sides inclined toward each other to allow of placing the

spokes close around the hub, as will be understood. Their narrow sides are made to fit against the disk C and the nut F, one side being in a straight line with the side of the spoke and the other side being projected slightly outward and provided with a notch, G, so as to fit against the disk C and engage the ribs D. A washer may be placed between the collar F and the spokes E, if so desired; but it is not essential to the proper operation of the device.

The end of the spindle A projects beyond the body B of the hub, and a nut, H, secured thereon, holds the hub in position. This nut H has an outer diameter equal to the diameter of the body B and an inner diameter equal to the diameter of the end of the spindle A. The top of this nut H is closed, thereby preventing the access of dirt to the spindle.

I I are slots or notches in the nut H and collar F, which allow of the application of a wrench in removing and replacing the same.

J is an opening through the body B, by means of which oil is passed to the spindle to lubricate the same.

My device is simple in construction, and, being composed of few parts, can be manufactured at a slight cost. The ribs D on the disk C engage the notches G in the end of the spokes E, and thereby hold them in place.

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

The combination, with the shouldered hub B, of the concave-faced disk C, having radial ribs D, the spokes E, having beveled ends provided with grooves G, and the internally screw-threaded nut F, fitting upon the externally screw-threaded end of the hub, substantially as shown and described.

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

JAMES REAGIN CRAVENS.

Witnesses:

J. C. BRYENS,

J. H. PATTERSON.