

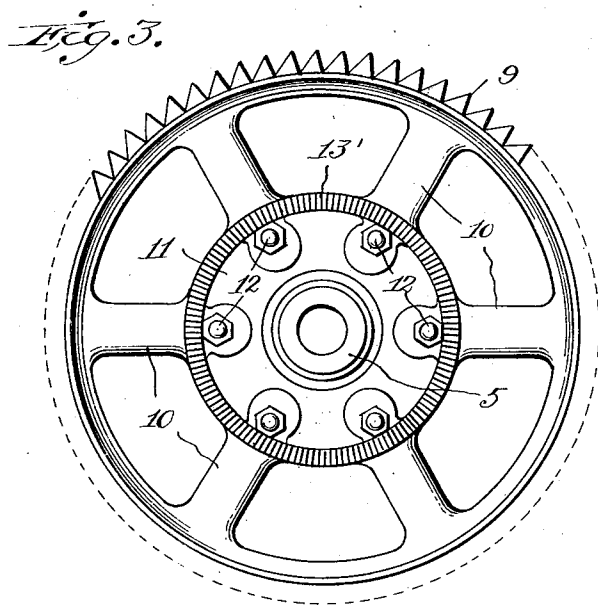
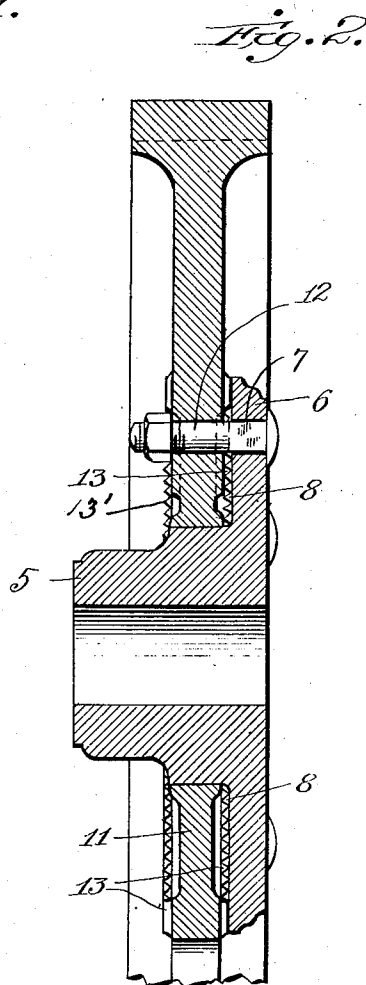
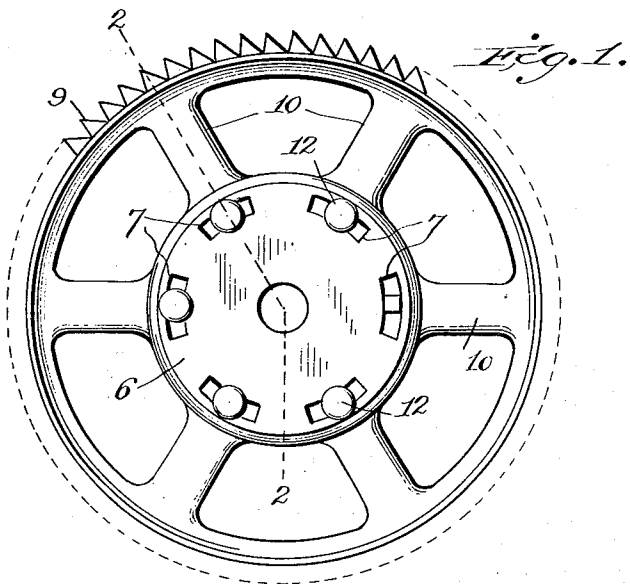
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R. W. GOSSETT

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LOOM GEAR

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By

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UNITED STATES PATENT OFFICE.

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LOOM GEAR.

Application filed April 8, 1924. Serial No. 705,069.

To all whom it may concern:

Be it known that I, ROBERT W. GOSSETT, a citizen of the United States of America, and a resident of Spartanburg, county of Spartanburg, and State of South Carolina, have invented certain new and useful Improvements in Loom Gears, of which the following is a full and clear specification.

This invention has special reference to the driving-gear attached to the cam-shaft of a loom. The duty of this gear is to drive the cams which actuate the picker-sticks. This gear is meshed with a gear on the crank-shaft, and in the operation of the loom the wear and shock comes on the gear at two separated points in its circumference, resulting in undue wear on several of the gear-teeth at these points. This undue wear at these isolated points in the gear requires that frequently the gear must be removed from the cam-shaft and rotatively adjusted thereon to bring fresh gear-teeth into the wearing zones of the gear. It is the object of this invention to provide simple means whereby the rim carrying the teeth may be rotatively adjusted on the hub member fastened to the cam-shaft, thereby rendering it a simple matter to rotatively adjust the gear-rim from time to time as conditions may require. Another object of the invention is to render the gear-rim reversible so that either face may be arranged to face toward the machine, thus rendering the gear adaptable to either a right-hand drive or a left-hand drive, as more fully hereinafter set forth.

In the drawing—

Fig. 1 is a side elevation of my improved gear;

Fig. 2 is a vertical sectional view thereof;

Fig. 3 is a detail view showing more particularly the locking serrations.

In the drawing annexed, 5 designates a hub carrying a radial flange 6 provided with a plurality of arcuate slots 7 in its outer edge. The inner face of this flange is provided with an annular series of serrations 8. This hub member is adapted to be keyed on the cam-shaft in the usual manner.

The wheel-rim consists of the usual saw-tooth cog-ring 9, radial spokes 10 and a cen-

tral inner disk 11 provided with a central hole for the passage of the hub cylinder 5. At intervals, the disk 11 is provided with bolt-holes for the passage of bolts 12 which extend through the aforesaid arcuate slots 7 and serve to clamp the disk to the flange of the hub. The face of the disk 11 is provided with an annular series of serrations 13 in position to interlock with the similar serrations 8 on the flange. With this construction, it will be observed that the gear-carrying member may be rotatively adjusted on the hub and locked against rotation by the bolts and the serrations, the serrations serving to prevent any shearing strain being brought upon the bolts. The nicety of adjustment will depend upon the fineness of the serrations; I prefer to provide twice the number of serrations as there are teeth in the rim, so as to provide for a half-tooth adjustment. It will thus be seen that the cog-carrying member may be readily rotatively adjusted from time to time, so as to distribute the wear progressively around the wheel, and it will be observed that this may be done without disturbing the key connection between the hub member and the shaft, thus permitting an adjustment to be made with but a slight loss of time in the operation of the loom. In addition to distributing the wear, the fine rotative adjustment of the rim in either direction on the hub enables the loom-fixer to adjust the loom so that it will not pick too "late" or too "soon," as the weaver expresses it, thereby avoiding the trouble and delay of adjusting the cam.

These gears are usually of the saw-tooth type and are usually made with a hub which requires that they be used in rights and lefts. These right and left gears are needed because of the universal custom of arranging the looms in two rows with a walkway between the rows for the attendant. It will be observed that I may render my gear convertible from a right to a left, or vice versa, by simply duplicating the serrations 13 on the rim-member on the opposite side of the disk, this duplication of serrations being designated 13'. It will be observed that by simply loosening the clamp-bolts and slipping the gear-member off the hub, the gear

may be reversed and replaced upon the hub and thus adapted for running in the opposite direction.

What I claim as new is:

- 5 A loom cam-shaft drive-gear embodying a hub-member adapted to be keyed to the cam-shaft and having a radial flange provided with arcuate slots and also with a series of radial serrations on its inner face, a gear

member consisting of a gear rim and a cen- 10
tral disk having a central hole for fitting over the hub-member and with an annular series of radial serrations adapted to engage the serrations on the hub flange, and clamp- 15
bolts.

In testimony whereof I hereunto affix my signature.

ROBERT W. GOSSETT.