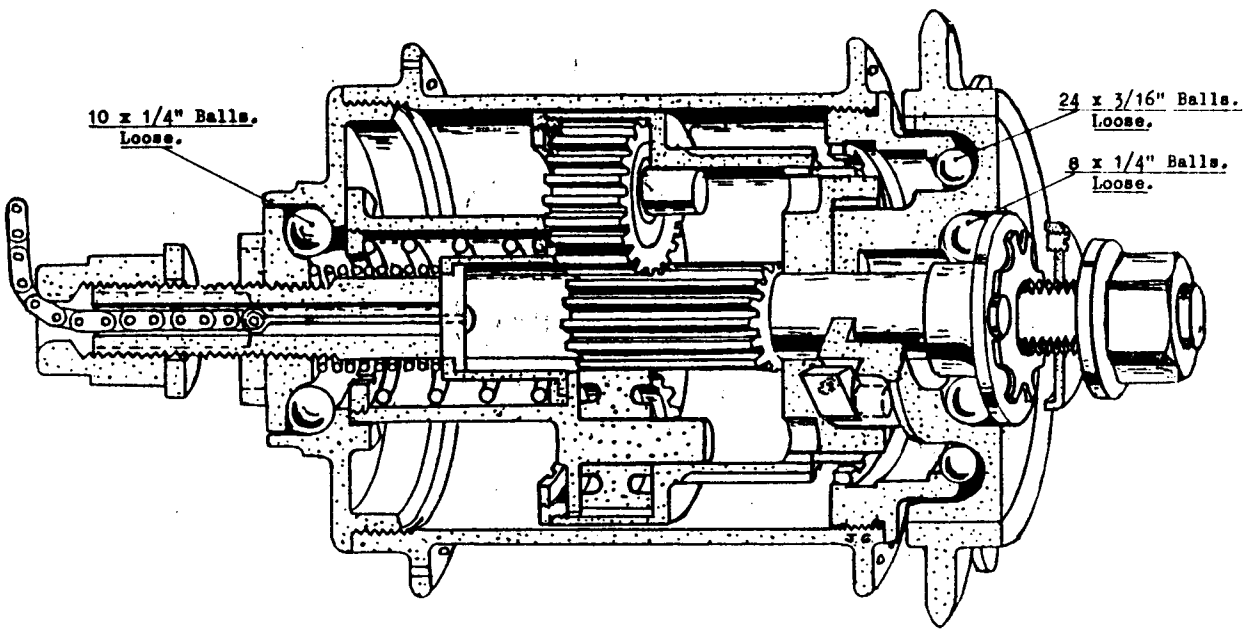
MODEL OF 1902.

E:\Hubs\Model02B.Sam

1st. Model to be offered to the public, December 1902.
64T Gear Ring, 4 x 24T Planet Pinions, 16T Sun.
Control Chain on the left hand side.
Planet Cage moves along the fixed Sun.
Solid Dog Clutches for each gear.

Ratios.
+25% Slack Wire.
Normal. Wire mid-way.
-20% Wire fully drawn out.

First model had "Micrometer" pawls in driver to give a free-wheel.
Later models had two spring loaded pawls for free-wheel.
Variations took place during production and some are shown on a separate sheet.



MODEL OF 1902 NO. 652.

TO STRIP HUB.

Remove left hand Cone. With Sprocket in palm of hand hold hub vertically. The complete Axle with Driver can now be dropped downwards out of the hub. The 24 x 3/16" loose balls can now be seen and collected. Unscrew the R.H. Cone and collect the 8 x 1/4" balls. Remove Axle. The Inner Driver can be lifted off the Main Driver revealing the two pawls. Unscrew the L.H. Ball Cup.The Planet Cage and Gear Ring can now be removed as a unit. The Retaining Ring in the Gear Ring is unscrewed for removal of the Planet Cage. If required the Compensating Spring can be removed from the Planet Cage by unscrewing its retainer. Note: The L.H. Ball Cup has a left hand thread.

TO ASSEMBLE HUB.

Fit R.H. Ball Cup if this had been removed. Assemble Compensating Spring in Planet Cage and fit the Planet Cage into the Gear Ring. Fit unit into the Hub. Refit the L.H. Ball Cup. Fit Inner Driver over the pawls of the Main Driver. Fit Axle through Inner Driver and add 8 x 1/4" loose balls followed by the R.H. Cone. Screw Cone up finger tight then back off one third of a turn. Lock Cone with Star Washer. Screw on Cap over the star washer and tighten 1/8" grub screw into the stasr washer.
Hold Sprocket in palm of hand and add the 24 x 3/16" balls to the main raceway. Still holding the Sprocket in palm of hand drop the Hub over the Axle. A piece of string or cable could help to feed the Indicator chain through the Hub assembly. Fit Axle Spring then 10 x 1/4" balls (in grease) followed by the L.H. Cone. Hub adjustment is carried out by this L.H. Cone.

J.G. May.1996.