ing the operation of the machine before shipment with these fixtures in place.

Gleason chucks and arbors are provided with a shoulder as illustrated in Fig. 37. This shoulder is drawn firmly against the nose of the spindle when tightened in place. It acts as an additional support when cutting and prevents the taper chain from being drawn too far into the tapered bore.

Before inserting an arbor or chuck into the spindle, both the fixture and the spindle should be wiped clean. The recommended procedure for assembly is to first see that the ejector screws or spanner nuts are withdrawn before assembling. Then wring the work holding equipment into the spindle as far as it will easily go and note how far the shoulder is away from the face of the spindle. If it stands away the proper distance as shown in Fig. 37, it may be seated in place. Never use an arbor or chuck which stands away more than the maximum amount or less than the minimum amount.

Now install the drawrod and adjust to length. Mount the pinion or gear in place in the work holding equipment and clamp. Then remove the gear or pinion.

Next check the equipment for concentricity by mounting a dial indicator which reads in 0.0001" so that its stem contacts the cylindrical centering surface of the fixture. Disengage the index work head fine tooth clutch, and with a crank in the driven index gear shaft, turn the spindle. Note movement of indicator pointer. Repeat with indicator stem in contact with gear mounting surface. Finally replace pinion.

Never drive a fixture out of the taper. Work holding equipment is easily removed by tightening the ejector screws or spanner nuts which are provided for this purpose.

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