used on more than one occasion discard it and use a new one. Fit the shoe springs, by anchoring the end farthest away from the operator, use a length of stout string in the free end of the spring, stretch the spring with one hand and guide the spring onto its anchorage with the other hand. Alternatively use a narrow blade screwdriver. Finally fit the expander lever with its nut and washer.

136. Balancing the Front Wheel

At high speeds, if the tyres are out of balance, the steering can be affected and in extreme cases the front forks can "flap" at maximum speed. As oil seals are used on the wheel spindle, the wheel cannot be accurately balanced until the friction caused by the seals is removed.

The courses open are:

(1) Remove the oil seals.

(2) Obtain two ball races with an internal diameter sufficiently large enough to take the wheel spindle, mount the wheel on two boxes as shown in Fig. 43.

If the wheel is correctly balanced, it should remain stationary in any position in which the wheel is placed. The most likely out of balance position will be where the valve is situated or where a security bolt is fitted. The heaviest part will of course come to rest at 180° or 6 o'clock. To counterbalance, use thin strips of lead twisted round the spoke. Special weights for this purpose are supplied by the tyre makers. When the wheel is in perfect balance, secure the strips of lead with insulating tape which should be painted with jointing compound. The effect of a balanced wheel has to be tried to be appreciated if continued high speeds are permissible.

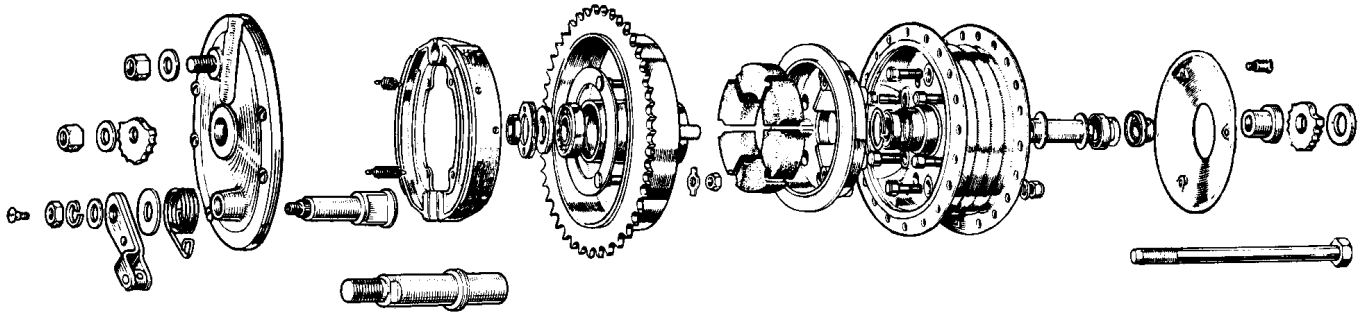
Rear Hub

137. Description

This wheel is of the "detachable" type, which enables the main portion of the wheel to be removed from the machine without disturbing the chain or brake. The wheel incorporates the well-known Enfield cush drive and also a 7 in. internal expanding brake.

138. Removal and Replacement of Main Portion of Wheel for Tyre Repairs, etc.

Place the machine on the centre stand, if necessary putting packing pieces beneath the legs of the stand to lift the wheel clear of the ground. Unscrew the loose section of the spindle and withdraw this, together with the chain adjuster cam, preferably marking it to ensure that it is replaced in the same position. Now slide the distance collar out of the fork end and lift away the speedometer drive gearbox, which can be left attached to the driving cable. The spacing collar and the felt washer behind it may now be removed to prevent risk of them falling out when manipulating the tyre. If, however, these are too tight a fit in the hub to come out easily they may be left in place. The main body of the wheel can



EXPLODED VIEW OF QUICKLY DETACHABLE REAR HUB
Fig. 44